# ATHLETIC JOURNAL

VOL. XXVIII, No. 8 April 1948

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## Split T or Single Wing

Bud Wilkinson

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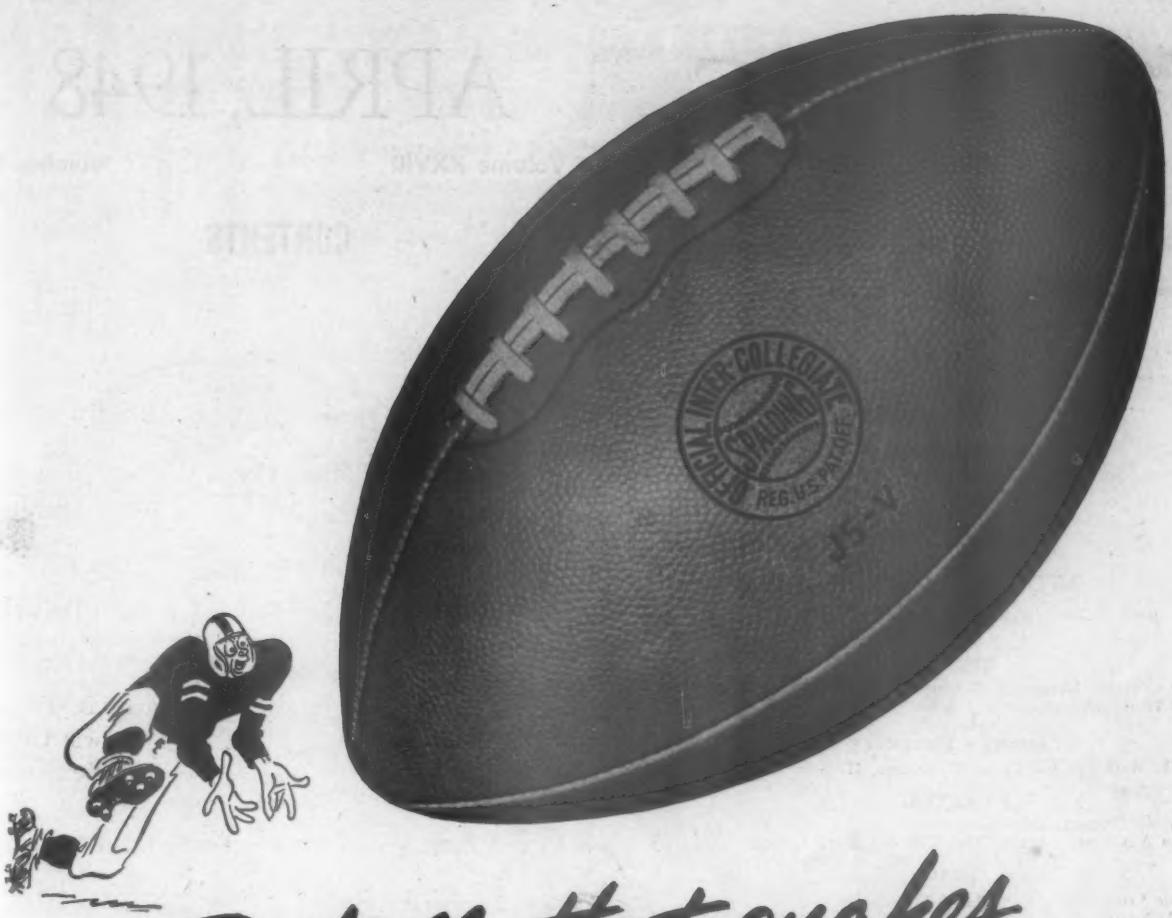


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**FRONT COVER ILLUSTRATION**

**David Sofield, winner of the River Forest 1947 Open Tennis Tournament. This picture is taken from "Beginning Tennis" an integrated series of five instructional slide films in sound and color now being produced by the Athletic Institute.**

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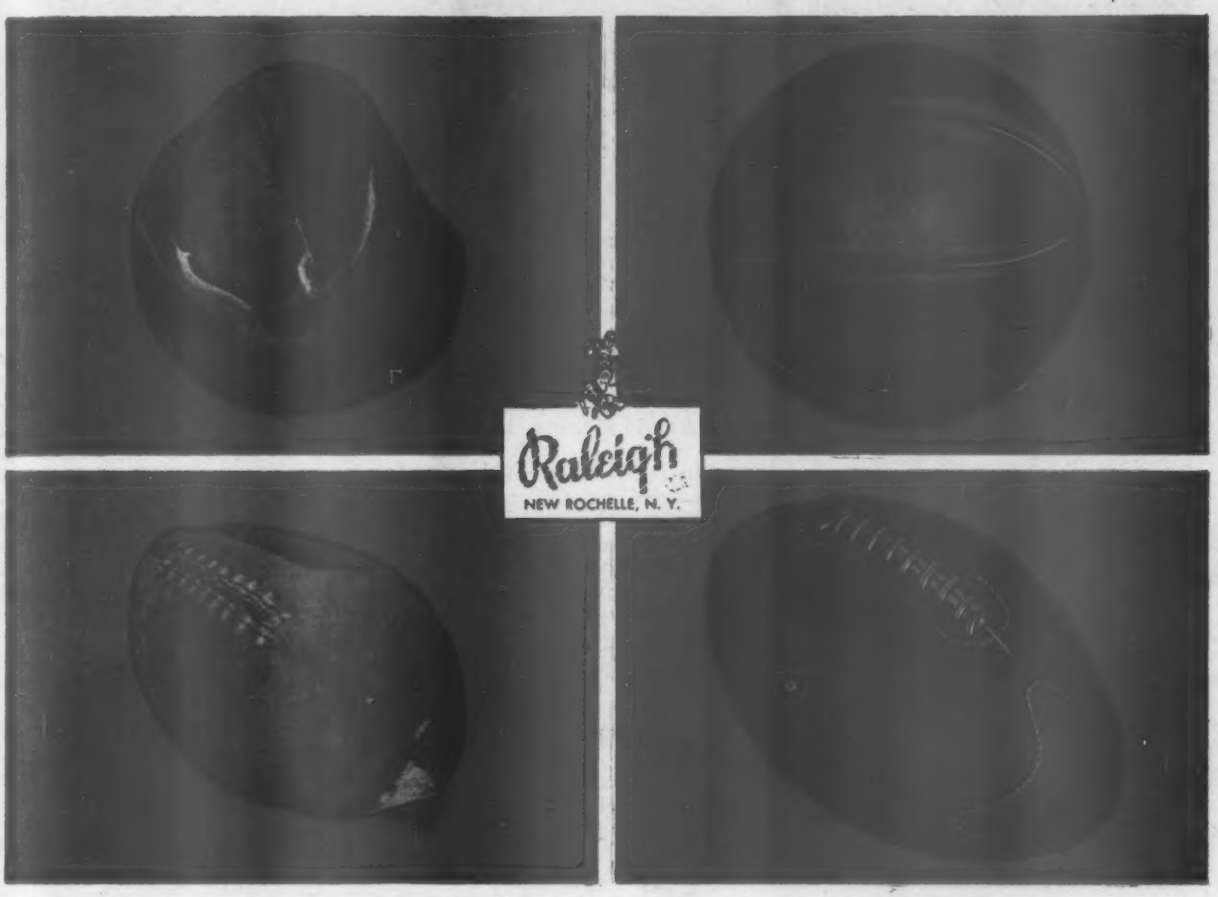


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A-48

# from here and there

WHEN Tom Jones, the veteran track mentor at the University of Wisconsin, retires this year, Guy Sundt, at present backfield coach and assistant athletic director, will take charge of the thinclads. Guy is a former broadjumper from the Badgers winning eight letters in football, basketball and track. Wisconsin then dug into high school ranks and took Lisle Blackbourn as its backfield coach. Lisle Blackbourn is athletic director and football coach at Washington High School in Milwaukee, having been associated with that school for twenty-three years. While there he produced eight championship teams in eleven years as well as such gridiron luminaries as Pat Harder of the Chicago Cardinals and Don Kindt of the Bears. When he takes over as backfield coach he will find an apt pupil in Lisle Blackbourn, Jr., last year's quarterback for the Badgers . . . Art Shouse, line coach at Hillsborough High School in Tampa, moves into collegiate ranks as assistant to Mike Gaddis at the University of Tampa . . . Bob Suffridge, former all-American at Tennessee, leaves North Carolina State to become line coach at the Citadel . . . Len Watters, who compiled the enviable record of 105 games won, 7 tied and 25 lost in sixteen years at White Plains, New York High School, goes to Williams College as head football coach.

* * *

POTSY Clark, new football coach at the University of Nebraska, with the founder of this magazine, operated a mimeograph pamphlet service on athletics while connected with the University of Illinois twenty-eight years ago. Out of this grew the Athletic Journal . . . The Mid West Physical Education Association will hold its annual convention in Indianapolis, April 7-10. Ray Bowman of Thomas Carr High School in Indianapolis is publicity chairman for this large organization . . . Stan Lambert of Austin, Texas, High School moves to Lamar College in Beaumont as athletic director and head football coach . . . Wes Fesler is junking the T formation at Ohio State in favor of the single wing . . . Bob Fitch who shattered the world record in the discus, withdrew from the leading contender's position for the Olympic team for that event when he announced that he would devote the summer to organizing his work as the new football coach at Augustana College at Sioux Falls, South Dakota . . . "Whitey" Anderson of Binghampton, New York, Central High School, has never lost a game on his home court and never lost more than four games in one season. His coaching record shows 102 wins out of 110 games. "Whitey" has been signed to divulge some of his basketball wizardry at the New York Basketball Coaching School this summer.

* * *

Howie Smith, assistant coach at Holy Cross the past two seasons, will return as head football and baseball coach at Mount St. Michael Academy in New York City. Howie held the same position for ten years before going to Holy Cross. . . . Marshall Wells resigned as head football coach at James Millikin to become line coach under Dal Ward at the University of Colorado. . . . John "Biff" Crowley goes from El Dorado, Kansas, High School to Kansas State College where he will be the new line coach. . . . Arthur Valpey, new head coach at Harvard, will bring Forrest Jordan along from Michigan as line coach and Dave Nelson, head coach at Hillsdale College as his backfield coach. Jordan and Forrest Evashevski were team mates at Michigan and together coached the Ford Island team in the Pearl Harbor football league. Evashevski is now assistant coach at Michigan State. . . . Evashevski, Jordan and the writer had three bunks side by side on a transport from San Francisco to Pearl Harbor.

* * *

Temple University will have three former head football coaches on their staff, with the appointment of "Ox" Da Grosa. Josh Cody will take over the freshmen activities as well as continuing as basketball coach.

*(continued on page 70)*

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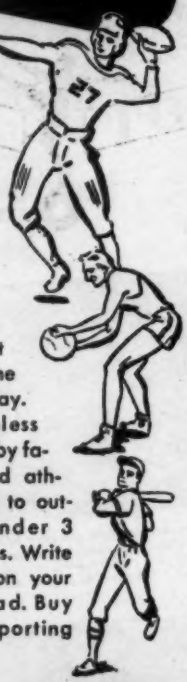

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# EUROPEANS AT THE OLYMPICS

*By Roger Debaye*
Head Coach, French Olympic Track Team

WITH the Olympic Games only five months away, it might be interesting to the American public to know something of the European athletes capable of distinguishing themselves.

Obviously there are several events in which Americans have incontestable superiority, such as in the discus throw, shot put, pole vault, broad jump, and the 110-meter high hurdles. There are others where the athletes of the Old World may well have the edge on the Americans, such as the 1500-meter run, 400-meter low hurdles, high jump, hop, step and jump, and the 1600-meter relays.

The races will be disputed between the American sprinters and the representatives of the British dominions. For example, in the 100-meter dash, MacDonald Bailey, known as the "Black Arrow", may well be the winner. The Australian Treloar may not get first place, but should finish well.

The best Europeans at present are the English newcomer Wilkinson, who ran in 10.4, and the Frenchman Bally, who has a time of 10.5. Ten other Europeans also have covered 100 meters in 10.5, but the majority have been, or would be, beaten by Bally.

For the 200-meter dash, competition is much more open. From his form of 1947, Herbert McKenley is a serious contender for Olympic laurels. Since he left the University of Illinois, however, he has had some difficulty returning to top condition. Whatever the case may be, the Olympic champion should be one of the following three: MacDonald Bailey, McKenley, or Harrison Dillard, if he participates in the 200-meter race. In this event the best Europeans still are the Englishman Wilkinson, 21.3; the Roumanian Moina, 21.4; and the Frenchman Bally, 21.6. None should worry the first-named three.

In the 400-meter race, the situation is equally critical for the Americans, who have rarely lost this race. Two of them seem to contest an American victory immediately—McKenley and Wint.

If McKenley remembers the advice of Illinois coach Leo Johnson, none in the world can defeat him. If not, Wint, the Jamaican giant who ran in 47 flat in 1946 and who rested for a year after pulling a muscle, could finish ahead.

The European contestants of the 400-meter race have little chance. The best one in 1947 was a Roumanian, Moina, whose 47.8 should not be sufficient to put him in the finals. After Moina, there is a Swede, Lundquist, whose best time is 47.9.

The European runners should distinguish themselves in the 800-meter event, but in my opinion, if Malvin Whitfield runs in this event, he will be the winner. The Europeans are perhaps more experienced, but his basic speed is superior. He should have a sprint of final speed. He can not hope to outrun his opponents before the final straightaway. However, the Frenchman, Hansenne, and the Dane, Holst-Soerensen, who both made 1.49:8 in 1947 and the Swede, Liljekvist, timed in 1.50:1, will be among the best. If Liljekvist did not do better than 1.50:1 in 1947, it is because he came back after a long absence from the track. He is young (22 years of age) strong, quick and tough. He will be the most serious outsider.

The 1500-meter race should be won by the European runners if the speed made in 1947 is any criterion. Strand equaled the world's record 3:43. Eriksson was just behind him with 3:44.4, and a third, the Swede, Bergkvist, was timed in 3:46.6. A Frenchman, Hansenne, ran in 3:47.9. Remember, Lovelock won in 3:47.8 in 1936.

Since then, Strand has been ill. The other two Swedes, Eriksson and Bergkvist can not run without being

*(continued on page 66)*

*Roger Debaye is spending two months in the United States studying American track and field, and physical education as it is practised in this country. He is on the staff of the French Sports Federation both as teacher and coach.*

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# TENNIS

## For College Coaches and Players

Chet Murphy, Tennis Coach,
University of Chicago

*Chet Murphy graduated from the University of Chicago and received a M.S. from George Williams College. He was Big Ten singles and doubles champion in 1939 and runner-up for National Intercollegiate singles and doubles champion in 1939. During the summers of '47 and '48 he was professional instructor at the Broadmoor Hotel, in Colorado Springs.*

THIS is to be a brief discussion of the mechanics, tactics and strategy of tennis and their special application to the game as played at the collegiate level.

Although much has been written on the subject of tennis in general, there is very little instructive material available which is intended primarily for college coaches and players. Most of the written material either describes the methods and style of play employed by the leading men players in the country or advocates principles of play for beginners. It is obvious to those familiar with tennis that the caliber of play of the average college player differs considerably from that of both a nationally ranked player and a beginner. True each year four or five of the best college players are included in the list of nationally ranked men players. These however, are not the average college players with whom most coaches have to work. They are the exceptional few who began playing tennis at a very early age and have had expert coaching and experience through the Boys and Junior divisions. They might well be considered as a group separate from the average varsity team candidates who are not quite so advanced in their methods of stroke production and knowledge of tactics and strategy. Since the average varsity group is unique in this respect, it is unfortunate that so little time and attention are given to the problems of the coach of such a group. This article is submitted in an attempt to improve this condition.

Since there is such a distinct difference in skill between the average college player and "first-ten" men, the tactics and strategy employed by the two groups should differ somewhat. The average college player is not as well equipped to play an aggressive, hard driving, hitting-on-the-rise game. His strokes are poorer and his shots weaker. It stands to reason then that the college coach would be foolish to advocate that his players follow blindly the strategy and tactics employed by more skillful players. The situation would be comparable to a basketball coach urging five slow, awkward men to use a fast-breaking offense, or a football coach employing a wide-open passing game without the exceptional passer and receiver necessary for that kind of game. The wise coach would consider carefully the level of skill of his players and their competition and then formulate a plan of practice and play based on his players' abilities and that of their opponents. This article may prove helpful to the coach when devising such a plan. The material may also prove helpful to the teachers of academic subjects and physical education teachers who are pressed into service as tennis coaches. It is not meant to serve as a textbook for them. Rather, it is hoped that they and other coaches will profit from these opinions and conclusions of one of their fellow coaches.

The elements of tennis are generally divided into three main categories: mechanics, tactics and strategy. Mechanics refers to the method and form used in stroking the ball; tactics to the manner in which strokes are put to use in a match; and strategy to the over-all plan or procedure for play in a specific match.

### The Mechanics of Tennis

In even the short time that a college coach has to prepare for the coming season there are some changes that can be made in his players' strokes that will add to their effectiveness. Rather than attempt to change

*(continued on page 20)*

No. 1 Starting position for the forehand drive. No. 2. Racket starting back before the pivot. No. 3. Pivot on the ball of the right foot. No. 4. Stepping into the shot with the "reaching foot". No. 5. Turning the racket over in the follow through.
Pictures are from Beginning Tennis, a series of five integrated sound slide films being produced by the Athletic Institute.

Illustration 1 shows excellent initial position at start of leg swing. Note that the weight is all on the rear leg, the right shoulder is dropped, the elbow out and the shot is held close to the neck.
Illustration 2 shows the position during the hop. The thigh is stretched, the elbow is in line with the shoulders and the feet do not land together, making the rock possible.
Illustration 3 shows excellent putting stance. Note position of feet, right knee and the body balance before the leg rock and body whip is made.

# Championship Form in the Shot

*By Ken Doherty*

**Track Coach, University of Michigan**

When considering champion shot putters, coaches have been inclined to think in terms of men well over six feet in height who weigh upwards of two hundred and twenty pounds. Men like Jack Torrance, Elmer Hackney, Stan Anderson and the late Al Blozis have seemed to typify the shot putters of outstanding ability. The present National Intercollegiate Champion, Charles Fonville of Michigan, however, does not fall into this category. By past standards for great putters he is a small man, weighing only 194 pounds, and standing six feet one inches tall. Despite his size, however, he is presently putting the sixteen pound shot farther than any man has ever done indoors, and last year as a nineteen year old sophomore he led the nation with a put of 54 feet 10 ¾ inches.

Quite frankly, Don Canham (my assistant) and I were just as amazed as everyone else when Charlie made his first put over 56 feet (56' 6 ½"), as his best put in practice had been 54 feet 6 inches, with very few puts over 54 feet. At the time we were concerned that he should have had his one "best" put so early in the season, but in five of our six indoor meets this winter he has surpassed the phenomenal 56 foot mark five times, and now has a best mark of 56 feet 10 ⅝ inches. One of the most remarkable things about this boy is his consistency. In a recent meet in Chicago, for instance, he had five puts well over 55 feet and one put over 56 feet, a fact which probably marks him as the most consistent of the great shot putters.

Charles Fonville came to the University of Michigan from Miller High School in Detroit as a sprinter and shot putter. His best put with the 12 pound shot as a high school student was a good, but unspectacular 52 feet 2 inches, with his average put being around 50 feet. While he is a fine all-around athlete, the only events that he has competed in at Michigan are the shot and discus. At the present time, he can high jump over six feet, broad jump twenty three feet, throw the discus better than 150 feet and cover 100 yards in less than ten seconds, all factors that contribute to his outstanding shot-putting. Like all great champions, Fonville is a tireless worker. But, more than that, he always is analytical about his putting, making sure that he is working along right lines. He watches his form constantly and always assumes that work which involves poor form is worse than no work at all.

At Michigan we have long felt that speed in putting is of great importance and that the most desirable position of all body parts is one which permits the greatest possible power to be applied with the greatest possible speed. Fonville's ability to maintain a

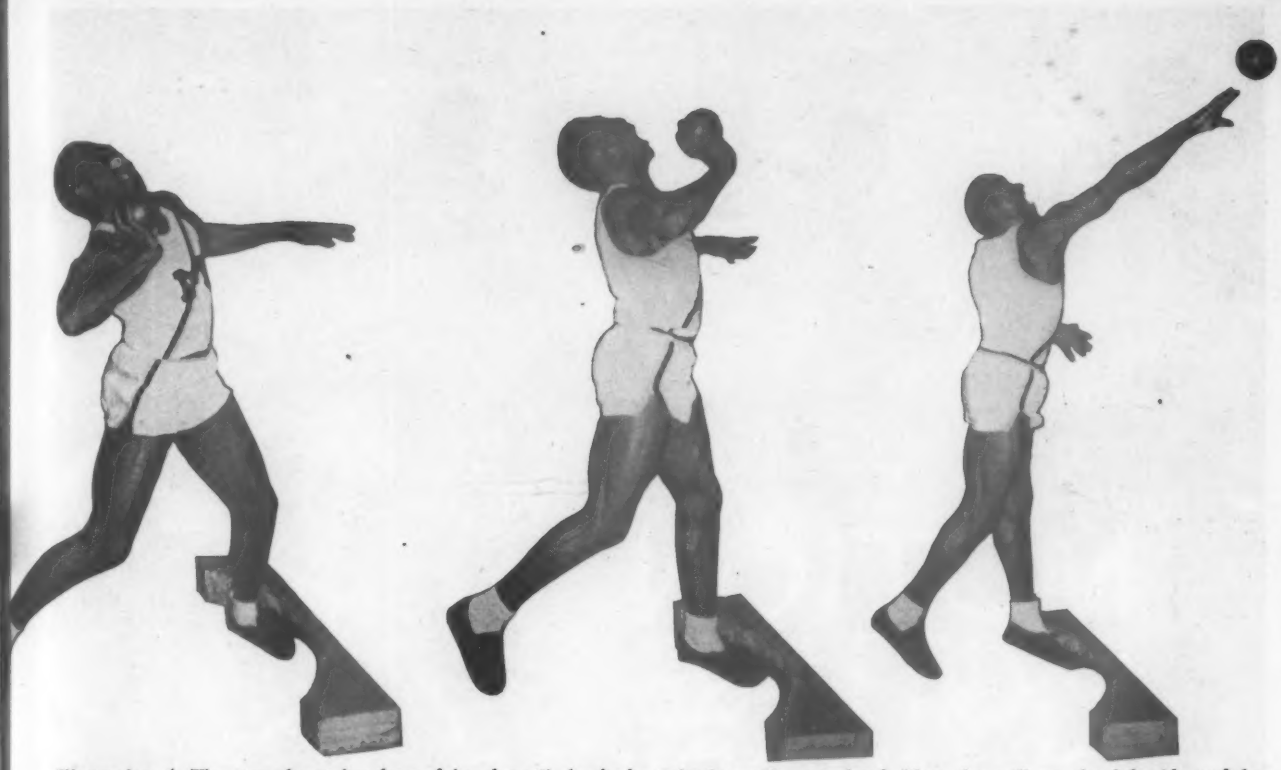


Illustration 4. The arm thrust has been delayed until the body twist is nearly completed. Note the pull on the left side and leg as well as the right leg drive.
Illustration 5. The trunk whip and body twist have been completed and the arm thrust has been started. The left leg is straightened and still anchored with the body well over it.
Illustration 6. The follow through. The feet have not reversed their position and are still on the ground. Note the extension of the right shoulder, the full arm thrust and the wrist and finger flip. (Credit: Argus Camera Company)

powerful position of all parts of the body while using great speed in getting these parts into action has, of course, been a major factor in his success.

A look at Fonville rrom the start of his put to the finish would start with his preliminary stance in the rear of the circle. Here the body weight is on the right leg, with the right foot planted solidly with the toes pointing slightly backward to the diameter of the circle. The back is straight, and the chin and chest are up, eyes looking horizontally and somewhat back of the circle. The shot rests on the thumb and the base of the first three fingers. The right elbow is held so that the upper arm is about 40 degrees from the body, but the heel of the hand is under the shot. The left arm is held at shoulder height and is bent at the elbow, and is always completely relaxed. The upper body is twisted slightly to the right with the right hip flexed and back.

Fonville's action across the circle starts with a definite body lean toward the toe board, and a dropping of the right shoulder, rather than left as so many putters do. As mentioned above, the weight has been on the right leg, and the left leg is lifted easily forward along the imaginary line across the diameter of the circle along which his body will travel. We are very conscious of the left foot, as it has been found that a high swing of the left leg results in it being bent more and thus dropping farther off the center line or in the left corner of the circle. This, of course, prevents a closed stance, as the man is facing too far forward as he starts his put. Fonville plants his left foot with the toe about two inches back of the imaginary line across the diameter of the circle. The body lean and the swing of the left leg are coincident with a quick hop off the right foot, a hop which hardly permits the shoe spikes to clear the ground.

As Fonville reaches the center of the circle he does not twist or hitch the right shoulder backward for he has attained the position of the upper trunk, with the right shoulder back, in his preliminary stance, and he merely maintains it through his glide across the circle. This seems quite important as it minimizes the possibility of a momentary pause in the center of the circle that prevents continuous acceleration of the speed of the shot. At this point the right knee is bent and the right foot is planted solidly and flatly, pointing backward at more than ninety degrees to the diameter of the circle. The right hip is back and slightly flexed. The back is straight, chest and chin are up, and the eyes and head have started to turn in the direction that the body is moving. The left arm is still at shoulder height and remains relaxed. The upper body is still turned about an eighth of a turn to the right, so that if the shot were dropped it would land just outside the middle of the right foot.

A look at the pictures at this point makes it evident that this is a powerful position, and as mentioned above, Fonville's ability to secure this position without a pause or loss of speed is remarkable. When speed is emphasized, as is so often the case today, the putter invariably faces the front of the circle, gets his weight too far forward and places his left foot against the far left edge of the toeboard. A good example of this difficulty was William Watson, who had a best put of 54 feet 6½ inches for Michigan in 1939. Using great speed across the circle, as he also weighed less than 200 pounds, he found it impossible after

*(continued on page 52)*

- **Harris B. Tuttle of Eastman Kodak Co. discusses the technical aspects of good football motion picture photography**
- **Howie Odell, football coach, University of Washington, discusses a new and different use of football movies**
- **Sam Ketchman of East Lansing, Michigan, High School discusses the filming of night games and a method of financing the program.**

*By Harris B. Tuttle*

DURING the past twenty years the use of 16mm motion pictures in colleges and high schools to film football games has been constantly increasing. Every major football game is filmed in its entirety on either black-and-white or color film. Many colleges film their complete football schedules for purposes of study by the coaches. Other schools record only certain games.

More recently, high schools have inaugurated a similar practice, and in some instances the complete high school schedule has been filmed. This is quite natural and proper, for if students are to profit by such training, they should have the advantages offered by the motion picture during their formative years.

### Uses of Football Movies

Football motion pictures not only offer a means of studying the execution of plays, but they can also be used as a teaching aid, and in many cases are used by the school alumni for winter programs. Films can be made, therefore, with emphasis on any one of several points of view.

1. They can be filmed to show the general action of both teams for study by the coach.

2. They can be slanted to the educational point of view to train players in the execution of plays.

3. They can be made from the purely factual or record point of view like the newsreel. These may be used for alumni showings.

At the present time the general emphasis is placed on the use of films by coaches in studying team play. Obviously such films are not as well suited for teaching or entertainment as for purposes of study.

*(continued on page 14)*

*By Howie Odell*

THE first thing we do is to make what we call a "distribution sheet." This is simply a chart that shows at a glance the various plays that were used, how often they were used and how many yards were gained on each. It plainly shows whether the attack was balanced and makes it easy to see to what extent our plans were carried out. For instance, if there is a defensive five-man line, we think that certain areas are vulnerable and should be attacked more often. Many times we find a play has been very successful the few times it was run while other plays will show a very poor percentage and have been repeated too often.

The next thing we do is make what we call a "grading chart". This, to us, is the most important thing we do. We use big 30" x 24" white posters which we mark off in about 1/2" squares all across the card with wider clear space at the top. We put the name of a player, then leave two spaces for his substitutes, and so on across the chart until all positions are listed.

We start with the first play in the movies. The first play that comes up might be Right 44. We know what the left end was supposed to do and we run the film through back and forth three or four times until we can make a decision on how well he did the job. If he did a perfect job he gets a 5; if he did a very poor job he gets a 0. In between the two, if he does any kind of an average job, he may get a 3 or 4, and opinions may vary all the way from 2 to 4. Of course, the actual grade number is not as important as the fact that the entire team watched him on the play and made a decision as to how well he carried out his assignment.

*(continued on page 57)*

*By Sam Ketchman*

Many high schools today, in keeping with the modern trends of football, are taking motion pictures of their games. Each school has its own method of sponsoring such a project, through donations from civic organization, through allowance within the overall school budget, or by donations from school clubs. At any rate, football motion picture photography has become an interesting and useful project.

To cover the expense of taking the pictures, the East Lansing Varsity Club decided to sponsor an intra-squad football game at the end of the second week of football practice and charge admission. Formerly it had been their policy to let the public witness the contest free of charge, but by advertising the contest as a benefit for raising money for the purpose of financing the football movie project, the charge was justified. As in the past, the squad was divided equally into two teams, with a coach assigned to each squad. Officials were hired and the game was played under normal game conditions.

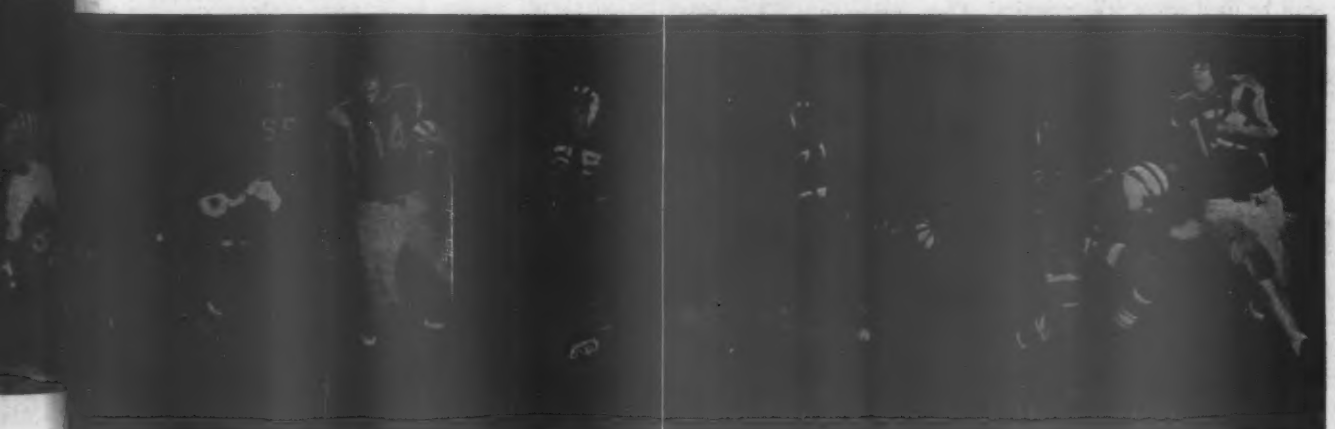
Surprisingly enough, with an admission charge of twenty-five cents, enough money was made to cover the cost of the project. The cost of printing the tickets and other incidental expenses were underwritten by the Varsity club.

The local newspapers co-operated in publicizing the game and emphasized the fact that local fans would have an opportunity to get a preview of the football squad for the coming season.

The intra-squad game served many purposes:

1. It gave all the local football fans an opportunity to see the prospective varsity team in action.

*(continued on page 58)*



The general procedures for making football films suitable for study are fairly well established. Motion picture photographers who have been making such films for many years have worked out a technique satisfactory to the coaches with whom they work.

In some schools undergraduates make the football films and thus there is a turn-over in photographic personnel every two or three years. Therefore, a uniform set of instructions on football photography might be helpful in such cases. It is hoped that by this discussion of the problems faced by the football movie maker, general information can be obtained which will serve as a general floor plan for the various types of films required.

### Equipment Required

The equipment necessary for football motion pictures is relatively simple but some of it is rather difficult to obtain at the present time. The manufacturers of cameras and projectors, however, are hopeful of being "out of the woods" sometime in 1948.

For taking pictures, a versatile motion picture camera is a "must." Since it is often desirable to slow action down slightly, a camera which will work at 24 and 32 frames per second, as well as at the standard rate of 16 frames per second, is necessary. The 24 frame-per-second, or sound speed, is valuable when sound commentary is to be dubbed in later or when oral commentary is made during projection.

The 32 frame-per-second speed permits slowing the action down so that when the film is projected at 16 frames per second the action will be slowed down two times, or one-half its normal rate.

The camera should be supported by a sturdy tripod and a motor drive can be used when it is practical. The use of a motor-driven camera eliminates the necessity of stopping to rewind the spring motor drive, and thus possibly miss filming important action.

Often it is desirable to have on hand a second camera for use when the regular camera is being reloaded. This camera can also be used for making miscellaneous scenes around the field and stadium, which may be used in a second film version for alumni use.

The camera should be equipped with the interchangeable film chamber feature. This permits the loading of the film into the film chamber in advance, and quickly interchanging the film chambers when the one on the camera becomes empty. An assistant cameraman can reload the empty chamber while the second chamber is in use on the camera.

The other important equipment for taking pictures consists of an assortment of lenses of the proper focal length. Experience has shown that two, and possibly three, lenses will take care of nearly all practical conditions. While it is possible to figure out mathematically the focal length of the lens required, such information should be checked by photographic tests before extensive filming is done.

### Perspective

Perhaps the first consideration should be the perspective or the point of view from which the films are to be made. Unfortunately, football stadiums and playing fields are seldom laid out advantageously for the photographer. In many cases the field is illuminated with side or cross-lighting and in some instances a photographer may finish the game shooting into the sun.

If black-and-white film is employed, a 45-degree to 90-degree lighting is not too bad and pictures made under such circumstances are usually acceptable. Such pictures, however, may show heavy shadows, which are objectionable to some coaches. The coach is not interested in dramatic lighting effects. He wants to be able to see every detail of every play clearly on the screen. However, if a color film is employed, the best results will be obtained with a front lighting. This means the sun should be back of the camera if possible. To accomplish this the stadium and playing field should lie in a generally northwest-southeast direction, and the pictures of an afternoon game should be made from the southwest side of the gridiron. Since this is seldom the case, the photographer has to choose a point for photography as close as possible to the playing field where the sun will be generally back of him during most of the game.

Experience indicates that the camera position should be elevated above the playing field so that the perspective is from above looking down on the field. The relative positions of all players can then be clearly seen on the field. It is often possible to "shoot" from the press box or the top of the grandstand or from a spot in the stadium suitably selected for the best point of view. It might be well to point out that when movies are made from ground level, players in the front shield players in the rear from the camera's view. It is usually important in the finished film for the coach to be able to see the individual action of any player and study the blocking, tackling, and maneuvers of the entire line. It is for this reason that in making motion pictures the camera should be elevated so that it is pointed slightly toward the playing field.

In some cases coaches have had special stands or platforms made for photographic work. Such stands are made from pipe and are usually portable. These stands permit the photographer to choose the most advantageous position to record the game. It is recommended that stands of this type be built whenever it is practical to do so.

Making motion pictures for purposes of study differs considerably from making still pictures for news purposes. The most dramatic news shots are made near the ground from a rather low perspective. The news photographer might prefer a "dug-out" along the edge of the field.

### The Selection of Lenses an Important Item

Once the general position of the camera has been determined, the focal length of lens required can be estimated.

In most cases the coaches want to see the entire line of play. This means that a fairly large area or field must be covered, and in most cases this can be accomplished with the 1", 2", or 2½" lens. Newsreel cameramen often use long focal length telephoto lenses and cover small areas. Thus they can get a close-up view of a ball carrier making a long run. While this technique is dramatic for the newsreel films, such shots are of little or no value to the coaches who want to see what is happening to the rest of the line.

The best solution to the choice of lenses is to make a series of tests from the chosen point of view during a practice session. From the projected test the coach can then choose the focal length of lens best suited for his requirements. Lenses are available varying in focal length from the 15mm wide angle to a 6" telephoto.

Such tests should be made with the players executing plays on difficult parts of the field. When the play is at a point closest to the camera the standard 1-inch lens might be correct;

*(continued on page 54)*

# A Zone System of Blocking

**By Lou Zarza**
**Line Coach, Detroit Lions**

In 1943 when I was coaching the Navy Zoomers at Norman Naval Air Station, we were trying to teach the Notre Dame system of football. One of the major obstacles was using a play or plays that would fit all defenses that an opposing team would set against us. I believe that shifting defenses cause more headaches to young coaches than any other phase when they are instituting an offense to a new group. Consequently, after one difficult scrimmage when our squad was unsuccessfully trying to cope against the five, six, and seven man line, I decided to develop a system that would simplify all the defensive variations.

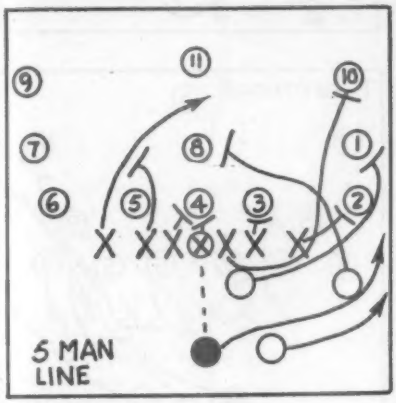


Diagram 1

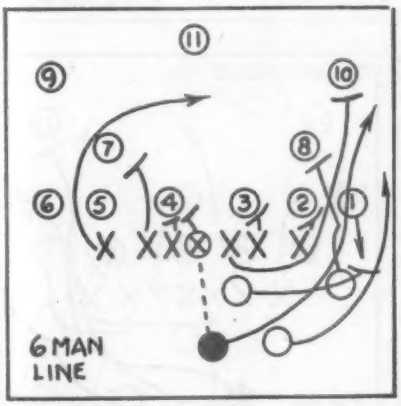


Diagram 2

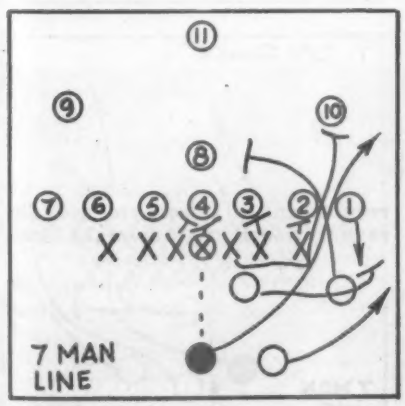


Diagram 3

I went back to my football file and, after reading a number of articles by leading offensive coaches in the football world, finally developed a zone system (if you may call it that) of blocking. When I first started on this system I had trouble with the defensive guards, especially when we came back to the weak side. This was a strong feature of the Notre Dame system that was taught by Mike Casteel, head coach of the University of Arizona. By the end of the season I initiated this idea to the Zoomer squad and found that the blocking assignments were simplified. At least the plan gave the team confidence as to whom they were blocking and it was not a hit-and-miss idea. Ray Brancheau, former halfback for Notre Dame (1933) was my backfield coach and he also thought that the system of numbering the defensive men had its merits. After leaving Norman Naval Air Station and receiving duty aboard the aircraft carrier, USS Salamaua, I decided to iron out the rough spots as I still was not satisfied with the blocking angles. This was how the system looked when I first adopted it. Keep in mind that we were still using defensive holes when employing the Notre Dame attack. See Diagrams 1, 2 and 3.

You can readily see what I was after. In order to simplify the blocking assignments I wanted my men to understand that whether the defense was in a 6, 5, or 7-man line, *we were blocking the man numbered in the area.* If Number 11 would move into the Number 2 spot, regardless if he may have been the safety man, he was considered a Number 2 man by us. Where the difficulty arose was in

*Lou Zarza graduated from Michigan State in 1936 and played on the All-Star team that year. He coached at St. Viator College in Kankakee, Illinois, Washington High School in East Chicago and later became assistant to Miles Casteel at the University of Arizona. During the war he served as an athletic officer in the Navy. In 1946 he was assistant coach at Michigan State and in '47 at the University of Santa Clara. He recently joined the football coaching staff at the University of Indiana but left to go with Bo McMillin to the Detroit Lions.*

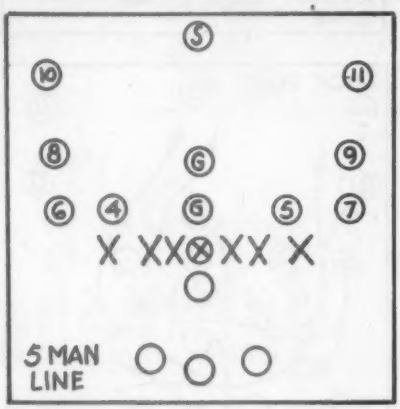


Diagram 4

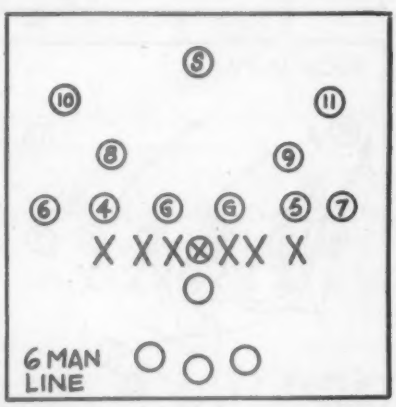


Diagram 5

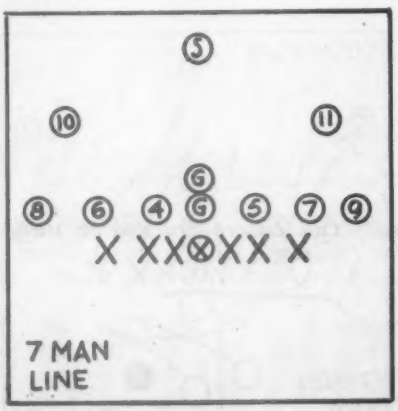
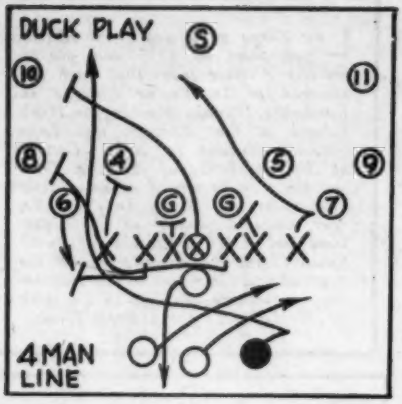
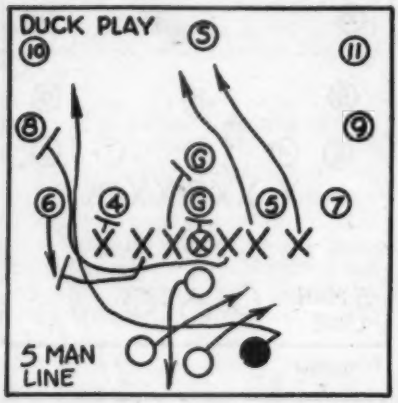
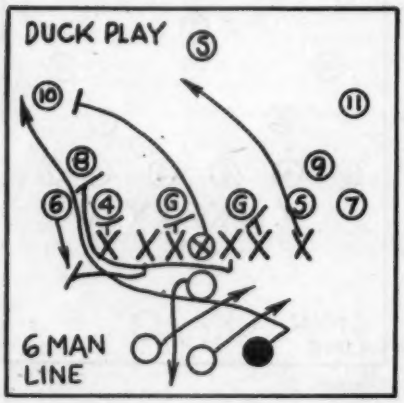
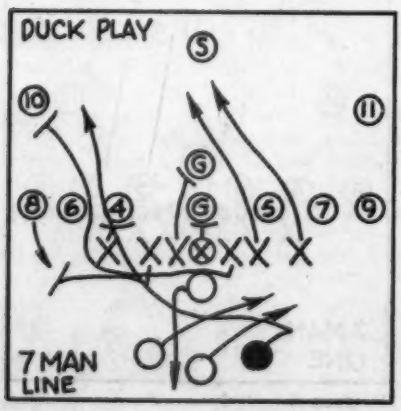


Diagram 6




our weak-side attack and you will note that in my last diagrams of plays we used, we have ironed out a lot of the difficulties.

When the 1945 season closed, Charley Bachman, head coach of Michigan State College asked me to join his coaching staff. During our spring football drills the same old nemesis appeared of the defense crossing us up by using a five, six, or seven-man line. I asked "Bach" to look over the idea. He liked it but in order to simplify it he called the outside back in the five-man line an end instead of Number 8, and the middle-backer-upper a center always. Using Bachman's Flying Z we did not have too much trouble running to the strong side, but again our weak side blocking assignments were being crossed.

We used the "T" formation style of offense at Santa Clara and again the major issue was the different defenses that we encountered and would meet for the current season. My plan had a number of flaws in it when calling the guards Number 3 and Number 4. The freshman coach, Jack Roche, proposed an idea to call the guards, G, G, instead of 3 and 4, and Clarence "Rip" Miller, Santa Clara's High School coach, aided us by juggling the numbers around. When we got through the system looked as shown in diagrams 4, 5 and 6.

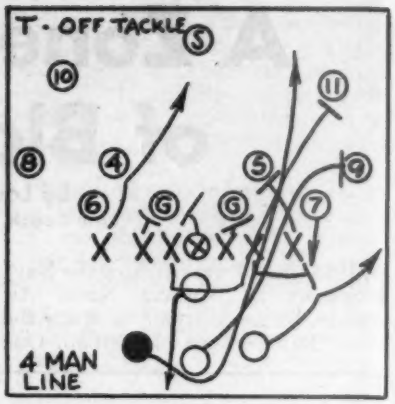
Calling the guards, G, G, instead of 3 and 4, simplified matters. Anytime our center had a man head on him, in a 5-man line or a 7-man line he would take him and he was identified as G. Our on-guard had to take G in a six and then if they would shift to a five or seven, we would consider him G also, and the on-guard would get the G (Middle backer-upper).

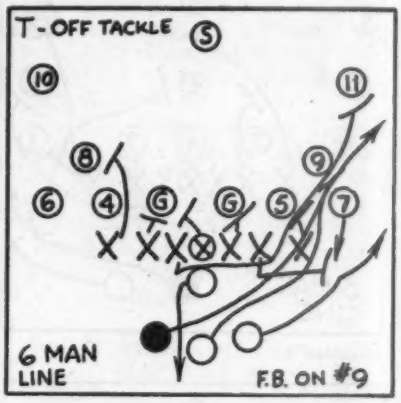
You will also note that we switched numbers from the original plan. On the right side of our offense against a 7-man line we identified the end man as Number 9, and tackle as Number 7 and the man in front of our tackle as Number 5.

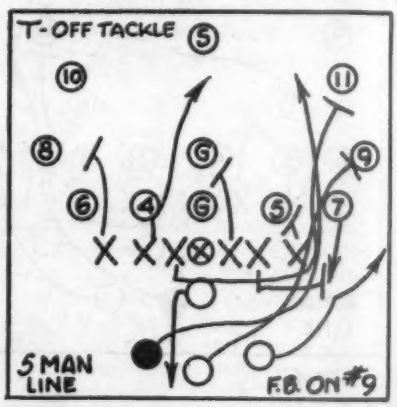
In the 5-man line the outside man was Number 7, the tackle was Number 5 and the two men facing the center were G, G. The middle backer-upper was the on-guard and the outside backer upper was considered Number 9. You must bear in mind that even if the quarterback or safety man on defense would take the position head on our center he was considered a G and we ran the play accordingly.

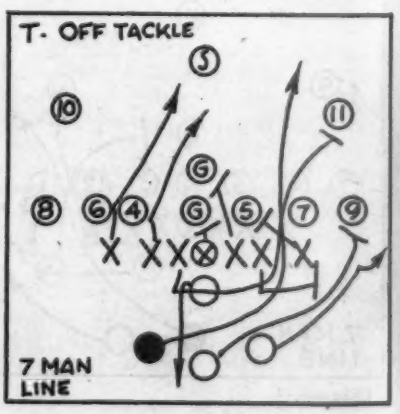
In a 6-man line you will note G, G, play their natural positions and we called the backer-uppers Number 8 and Number 9.

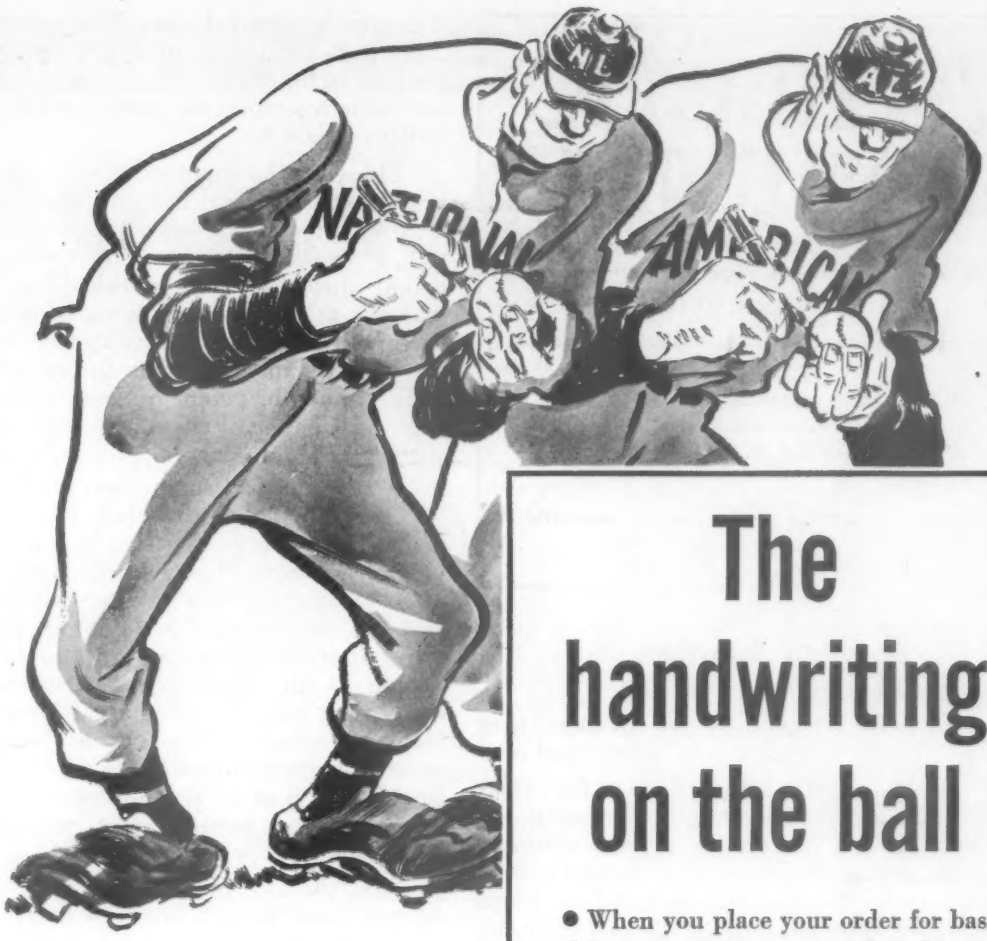
*(continued on page 70)*



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MAJOR JOHN L. GRIFFITH, *Founder* JOHN L. GRIFFITH, *Publisher*

# If War Comes

Being a coaching magazine our readers have probably often wondered why we stepped over into the political field with our constant attack upon communism. Frankly, our reasoning was somewhat selfish, if you please. It was selfish in the respect that communism and athletics don't mix. One is the exact opposite of the other. Communism would hold the speed of the fastest runner to that of the slowest. Should communism ever become a dominant political thought in America there would no longer be need for track coaches, football coaches and the like, and thus no need for a publication such as the Athletic Journal.

Perhaps we were extremely selfish in expounding democracy and the competitive way of life. We were often so criticized during the thirties when it was the popular thing to speak with glowing pride of the great accomplishments of Russia, "the workers' paradise." In fact, we were classed as outdated in our thinking.

Today, as everyone knows, the pendulum has swung, and whereas it was once considered a mark of the liberal mind to praise Russia, to do so now stamps the speaker as a "crackpot." Today we, in our undying mistrust of communism and Russia in particular, have many on our side for which we are glad. We mention this not by way of patting ourselves on the back, but rather by way of pointing out that some publications and newspapers are inclined to prostitute their convictions in order to stay in the current of popular opinion.

As this is being written the menace of another war in our time seems quite evident. In October 1938 an editorial with the same heading as this one appeared in these columns. This editorial appeared three years and two months before we were actually engaged in hostilities. The thought of that editorial so closely resembles the picture today that it seems well to repeat it.

"This editorial is being written a few days before it will be definitely decided whether or not Europe is to be plunged into another devastating major war. It seems hardly necessary to suggest that the people throughout the world abhor war and the majority at this time are hoping and praying that there will not be another upheaval similar to the one starting in 1914, that threatened to destroy civilization. The people of America especially seem determined that, if they have their way about it, they will have no part in this war if it comes.

"We are not ready to grant as yet that the nations of Europe will be so foolish as to start military action. If, however, the first gun is fired it is the part of wisdom for us to attempt to estimate what effect such a war will have on school and college athletics in the United States. Since, with improved transportation and communication facilities, the people of all countries are more world-minded today than was true twenty-four years ago, it is a fact that whatever happens in Europe must of necessity to some extent affect us in this country. Looking then at the possible consequences of such a war as may be imminent, we must consider these factors.

"First, the European nations, generally speaking, are not today as well prepared financially to carry on a long drawn-out war as they were when World War I started and it seems safe to assume that war, if it comes, will ultimately mean bankruptcy for some of the nations involved.

"Second, when a nation finds itself bankrupt as a result of its military activities, inevitably that nation goes through a social and political revolution that affects conditions in other nations.

"Third, it may be that following such a war as the world is now considering, the United States may ultimately remain about the only solvent nation in the world.

"Fourth, there is not much that we can do as athletic men to prevent war but whatever we can do along this line should be done as our contribution to the cause of peace. There is something that we can do, however, and that is to carry on our athletic programs. We should do this for two reasons; First, it is well that our people should retain their interest in school and college football, in the world series, and in other sports' activities that the American people find so interesting rather than that they should be constantly thinking about warfare. Second, if unforeseen events transpire which plunge us into war, we will have done our part

*(continued on page 71)*

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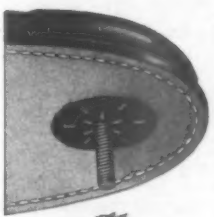

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# Tennis For College Coaches and Players

*(continued from page 9)*

the over-all method of stroking it is perhaps better that the coach concern himself with making small corrections or adjustments, all in keeping with the approved theory and practice of stroking.

Regardless of the variance in method of stroking employed by "first-ten" players (i.e., Eastern or Western grip, flat or top-spin shots, etc.) there are certain fundamentals of mechanics on which they generally agree. It is these fundamentals on which the coach should concentrate. He should encourage and assist his players to incorporate them into their strokes regardless of which general method of stroking they employ. The coach's chief concern should be with these generally accepted fundamentals. He should explain them, demonstrate the proper method, and suggest the best type of practice by which any necessary changes can be affected that will enable his players to conform to the approved methods.

As was indicated earlier, tactics and strategy for the average college player should differ greatly from that employed by nationally ranked players. On the other hand, the mechanics of stroking should not differ. The collegian would do well to study the technique and form of leading players and pattern his game after theirs. A brief discussion of those fundamentals on which there is general agreement, and which should be copied by all college players follows.

### The Fundamentals

*The body should be sideways to the net for all ground strokes.* Whenever possible, ground strokes should be hit with the body sideways to the net. Stroking from a sideways stance (much in the manner that a baseball player hits from a sideways stance) gives more freedom and power by making it possible to pivot the hips and shoulders more fully. It also makes for more accuracy and control since the point of contact of ball and racket face, whether it be in front of, opposite, or in back of the left hip, can be more definitely fixed in the player's mind. Quite often a player may be able to save a step's distance and some time by stroking from a position with the feet almost "facing the net", but even then he should pivot at the hips so as to turn the shoulders as far sideways to the net as possible.

*The shot should not be hurried.* When forced to run for a ball, college players often make the mistake of delaying the backswing and hurrying the stroke. On all tennis strokes the backswing should start soon enough so that the racket can come through smoothly and rhythmically. If it is necessary to run for a ball the backswing should begin while running so that the racket can come back and then forward gracefully and smoothly before stroking the ball. Delaying the backswing until reaching the position on the court from which the ball is to be hit will often necessitate a hurried backswing and shift of weight which is apt to cause bad timing and result in a bad shot.

*The racket should be leveled before starting the forward swing.* On ground strokes, after making the backswing, the racket should be lowered to the level at which the ball is intended to be hit before starting forward. The racket should not dip during the swing, but should travel parallel to the ground or slightly upward all the way.

### Step Into The Shot

*The follow-through should be behind the ball.* After striking the ball the racket should swing forward and follow through as far as possible in the direction of the intended flight of the ball. College players often stroke across the ball by allowing the racket to travel across the front of the body in a circular arc and off toward the side line in the follow-through. Instead, they should learn to "hit through the ball" by flattening out the circular course which the racket follows. The flattening out process can be accomplished by leaning forward and stepping toward the net with the front foot, and pivoting the body so that the right shoulder finishes on a line with the left shoulder parallel to the net. This will make the forward motion of the body parallel to the line of flight of the ball. When properly utilized in this manner the forward motion of the body will increase the speed of the racket and thus add to the speed of the ball. The flatter arc which the racket follows makes for greater accuracy.

*The knees should be bent.* Players will have difficulty getting body motion into the shot unless they bend their knees when they pivot. On extremely low balls the knees should be bent a great deal and the feet spread to maintain body balance.

For balls hit at waist height or higher a slight bend in the knees is still necessary if the body balance is to be maintained while the body motion goes forward with the arm swing.

*The eyes should be on the ball.* Bending the knees will also bring the head down closer to the ball and make it easier to see the ball at least until a moment just before contact, if not at contact. "First-ten" players differ in opinion as to whether or not they see the ball at the moment of impact. Some say they do. Others say they try to but don't actually see the ball on the strings of the racket. Regardless of this difference of opinion, almost all of them admit that they *try* to see the ball and actually focus their eyes on it as it approaches the point of contact.

*The arm should be straight when hitting a backhand groundstroke.* Still pictures of leading tennis players show almost unanimous adherence to this principle of stroking. Although the hitting arm may be bent at the elbow during the backswing, the arm should be fully extended and perfectly straight at the moment of impact. When hitting straight ahead, the racket head and the player's arm should be in a straight line at the point of contact. Changes in direction of the flight of the ball can be made by changing the timing of the swing so that the ball is met in front or in back of this original point of contact. Neither the waist nor the elbow should be bent at the moment of impact.

### The Tactics of Tennis

Sound as a player's strokes may be they will be of little value to him in competitive tennis unless he knows when and how to employ them. The methods by which strokes are put into use to win points in a tennis match are referred to as *tactics.* A discussion of certain tactics which have been successfully applied in collegiate play follows.

*Hit into levels above the net.* College players will profit if they develop the habit of "hitting into levels". Besides hitting every shot to a definite area in the opponent's court, they should strive to make the ball cross the net at a certain height. The height or level above the net for each shot will vary depending upon the type

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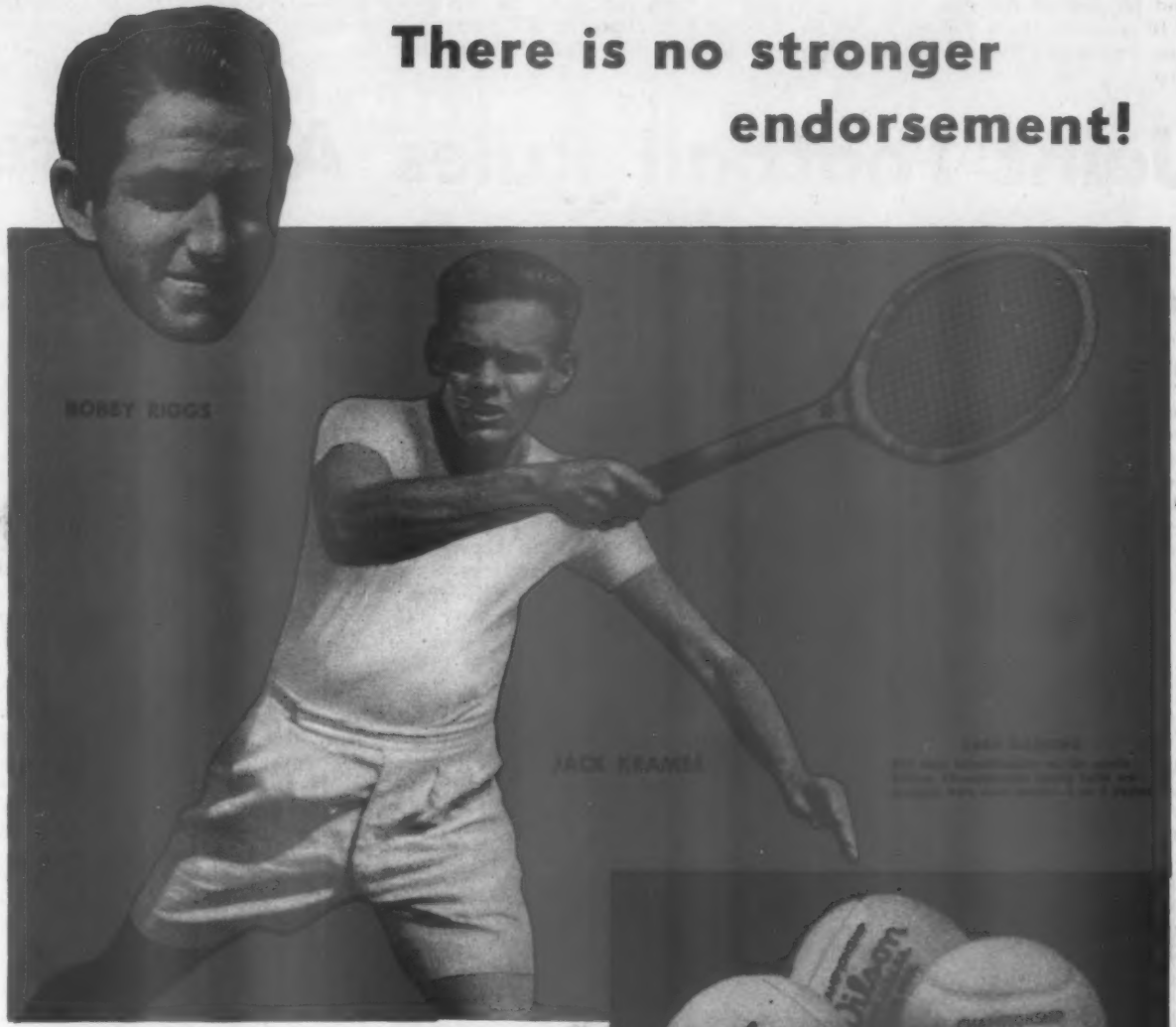


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and purpose of the shot.

In general, there are three levels into which the ball can be hit. The first and lowest level is that which extends from the top of the net to a foot or two above it. All very hard shots, short cross-court shots, passing shots, drop shots, and shots to the net man's feet should be hit into this level.

*(Concluded in May Issue)*

# Joint Football Rules Are Here

**By H. V. Porter**

***Secretary, National Federation of State High School Athletic Associations***

AFTER sixteen years of the National Collegiate and National Federation football authorities have agreed to use a common set of football fundamentals and to adopt football rules provisions with a common wording. Each of the two organizations will publish its own edition of the football rules but they will be alike in all cases except for the few sections in which the collegiate game procedures differ from those used in the high school game.

### Historical Facts

Conferences concerning joint activity by the collegiate and high school groups were started about 1929. At that time some thought was given to the forming of a joint football committee somewhat similar to that which now formulates the basketball rules for colleges, high schools and other related organizations. While agreement was reached in preliminary negiotiations concerning the forming of such a joint committee, some obstacle always arose to prevent adoption of these plans.

As a result, the high schools, through their National Federation, set up machinery in 1931 for the formulation of a code to govern the high school game. Since that time the colleges have operated under one code and the high schools have played under a different code. Through the sixteen years many differences developed. The high school game was played under more liberal rules in connection with activity during forward passes. There were also differences in connection with rights of players during a kick and there were many variations in connection with rules organization.

At various times during the sixteen years, conferences were held between representatives of the National Collegiate Committee and the National Federation. The purpose was to determine whether conditions had changed in such a way as to make joint action feasible. These conferences led to a great deal of discussion but the end result was a disposition for each group to go its own way as far as football rule matters are concerned. At one time a conference gave promise of getting results. Agreement was reached concerning a number of places in which both codes would be changed in order to eliminate minor differences. When these proposals for change were presented to the full committees the two groups differed widely in their willingness to accept the recommendations of their representatives. Following that attempt there were only sporadic informal conferences concerning the matter.

### Recent Developments

At the 1947 meeting of the National Collegiate Committee, the group decided to recodify the collegiate rules. Representatives of both the collegiate and the Federation groups were of the opinion that, since a recodification had been authorized, there might be a possibility of some type of joint activity which would lead to a commonly worded football code. Joint conferences were held during the summer of 1947 and plans were outlined for further negotiations. These plans included the following fundamentals:

1. The National Collegiate Football Committee and the National Federation Football Committee will each continue to function as it has in the past. The collegiate committee will act on provisions which affect the college game. The National Federation Committee will act on provisions which affect the high school game. Each will be responsible for its own interpretations and supplementary publications. Each will publish its own edition of the football rules.

2. Representatives from each group were then appointed to confer in an attempt to agree on fundamentals on which a commonly worded code could be built.

3. In this commonly worded code, the collegiate edition will contain the provision which applies to the college game ir any case where there is a different procedure. The Federation edition will contain the provision which applies to the high school game. References will be made to such differences.

### Joint Conferences

Joint conferences were held during December and agreement was reached concerning the basic fundamentals which would be recommended to the two national committees.

These recommendations were used as the basis for discussion at the meeting of the National Federation Football Committee at Biloxi during January and at the meeting of the National Collegiate Football Committee at Savannah, Georgia, during January. Further conferences were held during February and March and representatives of the two committees drew up a proposed joint code. This joint code was submitted to vote by both committees and final approval by both groups was given after a final conference which was held at New York, March 28th, 29th and 30th. *As a result, all amateur football during* 1948 *will be played under the new Joint Code.*

### Joint Football Code

The new code represents intensive analysis and organization through many weeks. The committee which drew up the code had valuable contributions from many members of the two national committees and from many other football leaders. This has permitted the production of an orderly code in which the science of football is given scientific coverage through a setting down of the classified laws which govern the game.

The material contains the best ideas which have been brought out in the many conferences. It is an entire recodification, built as a unit and incorporating the best features of both the Collegiate and the Federation codes. It is entirely different from either but, at the same time, there is enough resemblance to each of the old codes to permit any student of the rules to "feel among friends" when studying the new book.

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### Features of the Code

The differences between the collegiate and the Federation rules have been reduced from approximately 150 to approximately a dozen. The new code contains no supplemental notes. Wherever necessary the essential material, which was once included in scattered notes, has been incorporated in its proper rule. The rules statements (football laws) are organized on the basis of rule, section and article. There are no items, hence reference numbers are in either two digits or three digits. In general, the provisions are in complete statements or paragraphs, each of which is a correct unit. This has been done, even though it has sometimes resulted in unnecessary repetition of certain introductory phrases. There are very few cross references and the few are references to a preceding or following paragraph. Practically all exceptions have been eliminated. The only places where it has been necessary to make indirect reference to an exception are in cases where the game itself has an odd set of conditions which are in the nature of exceptions to game fundamentals. The rules can be no more logical than the game and, if there are certain cases where a given type foul has a "non-conformist" penalty, it is probably because there is a fault in the conditions which have been imposed upon the rules writers in the sense that the condition does not conform to game fundamentals.

### Code Organization

The new code is based on a few fundamental game principles. In this respect it resembles a science code which is built on a few natural laws or a code in geometry or algebra which is based on a few fundamental axioms or mathematical principles. For purposes of illustration, here are a few of the football axioms on which the code is built. During a down the ball is always alive. A live ball is always in possession of one team or the other. When a team is in possession the ball is either being held by a player (player possession) or else it is loose (as in a pass, kick or fumble).

The game is made up of a series of downs separated by a dead ball period. The two primary penalties for a foul are loss of 5 yards or loss of 15 yards. A pass, backward or forward, is merely a type of loose ball and the general loose-ball rules apply. Whenever the ball becomes dead behind a goal line it is either a touchdown, try-for-point, field-goal, safety or a touchback. Penalties are enforced by the "3 and 1" method of enforcement. Penalty enforcement provisions are condensed into a few paragraphs in Rule 10.

### Typical Rules Provisions

Here are a few of the provisions which are included in the new code and which will be in effect for the game of 1948.

1. An artificial tee will be permitted during any place-kick (any free-kick, try for field goal, or try-for-point.)

2. When a scrimmage-kick touches something behind the receiver's goal line the ball will become dead immediately, regardless of whether it has been touched in the field of play.

3. If a first free-kick is out-of-bounds, it will be kicked again. If the second such kick is out of bounds, the ball will be awarded to the receivers on their free-kick line (usually the 50-yard line if the kick-off is out-of-bounds).

4. Penalty for any infraction of the substitution rule will be loss of 5 yards.

5. If any foul, such as encroachment or delay of game occurs near the time of the snap, the referee will be authorized to blow his whistle to kill the ball only when the infraction occurs early enough to give the referee a reasonable chance to prevent the snap. If the infraction is too late for this, the referee will withhold his whistle and allow the play to go through.

6. Teams will be permitted 25 seconds for the huddle and for getting the ball into play.

7. Penalties will be enforced in accordance with the "3 and 1" method of enforcement. This means that the basic spot of enforcement for a foul which occurs during a running play is at the spot where the ball becomes dead. The basic spot of enforcement for a foul which occurs while the ball is loose (during a kick, pass or fumble) is at the previous spot (where the ball was snapped or free-kicked).

8. There will be no restriction to prohibit a center, guard or tackle from changing positions with a backfield player during any down. When such a lineman takes a position one yard or more behind the line he becomes a back and has all the privileges of any other back.

9. Handing the ball forward will not be considered a forward pass. In a pass, the ball must actually leave the hand of the passer and travel in flight. When the ball is merely handed to a teammate it is legal, in certain situations behind the line. When illegal, it will carry a penalty of loss of 5 yards.

10. If a forward pass touches an ineligible player the ball will remain in play. At the end of the down the penalty will be enforced or declined. Also, if a forward pass touches an ineligible player in or behnid the line, it is treated as a type of illegal pass which carries a penalty of loss of 5 yards and loss of down.

11. Any number of substitutions will be permitted while the ball is dead and the clock is not running. When the ball is dead but the clock is running, one substitute may enter in the collegiate game and two may enter in the high school game.

12. A field-goal may be scored by any drop-kick or place-kick during a kick from scrimmage or during a return-kick or during any free-kick other than the kick-off.

13. Right to advance a recovered kick is determined by whether the kick is recovered behind the scrimmage line or beyond it.

These are illustrations of provisions which will govern the game during the current season. Some of these are the same as those which existed in either the collegiate or the Federation code during the past year. Others are different from the provisions in either of the past codes. In each case the provision has been included for purposes of greater simplicity or greater equity.

### Rules Machinery

Arrangements are now being made to set up nationwide machinery whereby features of the new code may be studied by groups of coaches, officials and players. A series of football meetings will begin during August and will extend through the early part of September. Meeting leaders will be appointed in each state and there will be ample opportunity for full discussion of each provision of the new code. It will be a relief to many groups to know that, while there are still some differences between the game as played in the colleges and as played in the high schools, these differences are confined to a few major provisions which are necessary because of the different needs in the two age groups. The basic fundamentals are now the same for both and it should not be difficult for any student of the rules to keep in mind the basic differences.

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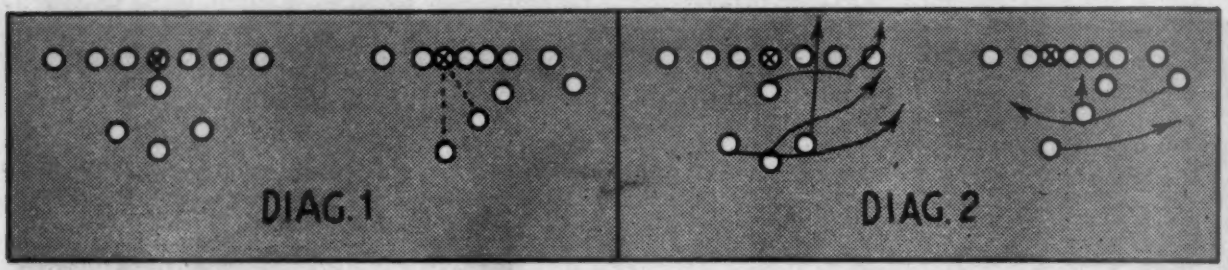



Diagram 1. In the T formation there is no time element involved in the snap and exchange of the ball. In the single wing the time the ball is in flight gives the defense time to hit and react. Diagram 2. In the T, the ball handling and faking occur at the line of scrimmage, thus the defense has no time to react to fakes. In the single wing, the faking and ball handling take place three to four yards behind the line of scrimmage which gives the defense time to adjust to the fakes before the ball carrier makes yardage.

# Split-T vs. Single Wing

By BUD WILKINSON
Football Coach, University of Oklahoma

ANY comparison of the split-line "T" offense introduced in 1941 by Don Faurot of Missouri, and the normal single-wing offense originated in 1907 by Glenn "Pop" Warner of Carlisle and Stanford, must begin with the concession that each style of play has it advantages and disadvantages.

I believe the basic advantage of any "T" formation is the terrific head start it gets on the defense from the moment the ball is snapped until the ball-carrier is in possession and moving toward the line of scrimmage. In a normal single wing the ball is thrown from the center to one of the two deep backs who is usually between four to five yards behind the line of scrimmage. The ball is not in flight for any great length of time, but as soon as the ball moves, the defense charges, and while the ball is in the air the defense has time to hit and react to the blocks of the offensive line and also to locate the ball.

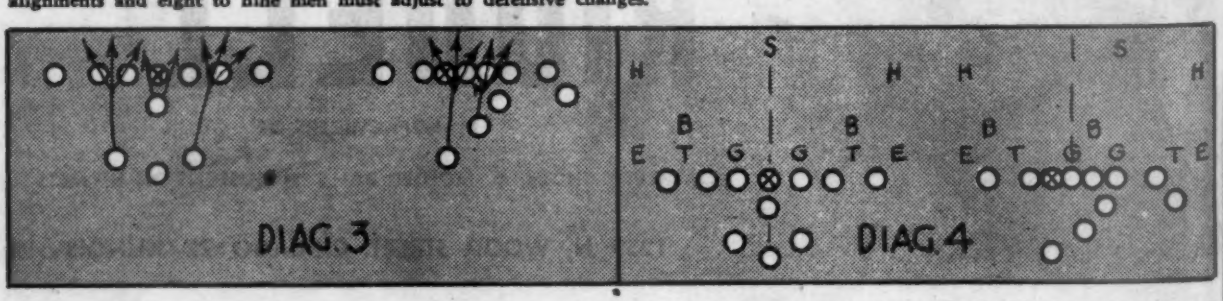
On the other hand, when the ball is snapped from the center to the "T" formation quarterback, the exchange is so simultaneous that there is no appreciable time element involved before the backs and the ball are moving in almost any direction and the defense does not have any chance to hit and react to blocks and still be sure of the location of the ball. This reaction time element is, I believe, the greatest single advantage of the "T" formation.

The second advantage of the split-line "T" is that its deception originates at the line of scrimmage while the deception in the single-wing attack occurs about four yards behind the line. When initiating single-wing plays involving deception, the ball goes to one of two deep men who spin and fake to one another or to the wingback, with the deception nearly always taking place well behind the line. When the deception terminates, the ball-carrier still must move three to four yards forward before he makes any yardage against the defense. This gives the defense the opportunity of adjusting to the play before the ball-carrier reaches them. But in the split-line "T" formation the quarterback works down the line of scrimmage and all of the faking takes place exactly on the line. When the faking is over the ball-carrier should be making yardage against the defense because of his advanced position. Thus, the defense has no time to adjust to the fakes before the ball-carrier is making yardage against them.

The third advantage of the split-line "T" formation over the single wing is its ability to hit with the speed of a fullback across the entire line of scrimmage, left as well as right. The single-wing attack can hit

*(continued on page 50)*

Diagram 3. The T hits straight ahead and is quicker over a far greater area of the line of scrimmage. Diagram 4. The T faces equally balanced defenses and only three to four men need adjust to defensive changes. Single wing does not always get balanced alignments and eight to nine men must adjust to defensive changes.



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# BREAK That Slump

**By James Smilgott**
**Baseball Coach, Taft H. S., Chicago**

The batting slump is one of the most puzzling phenomenons in baseball. It comes at no specific time, issues no warning and has devastating results. It usually puzzles the batter completely. He may be hitting regularly when suddenly everything goes wrong and he is in a slump. In baseball vernacular, "He can't even buy a base hit." He may feel no physical change while batting nor notice any appreciable difference in his timing but whether he feels a difference or not, he is usually at a loss to explain or solve this sudden famine in base hits.

All players agree that there must be something wrong in the batting process before a slump can occur. It may be the result of a change in timing when bat meets ball or the batter may be taking his eyes off the ball too soon. There may be a slight alteration in the grip, stride, swing, position in the batter's box, or in the stance. Any of these items may occur unnoticed by the batter who is industriously trying to collect base hits.

Slumps oftentimes occur as the season progresses and the muscles of the body become tired and are unable to cope with the fast pace of strenuous daily play. Tired eyes may not follow a fast-moving ball quickly enough to hit properly. Tired muscles may not respond quickly enough to make the bat meet the ball properly.

Swinging at bad pitches has often been suggested as the cause of batting slumps. While it is true that this is one of the characteristics of a slump, it may not necessarily cause a slump. Other basic causes are more often responsible.

Injuries are often a direct cause. Players who have injured fingers cannot grip or swing a bat properly. Muscle bruises on the arms and legs may affect the swinging process and lead to inefficiency in batting.

Some slumps originate in the thinking process. Slumps are inevitable with guess-hitters. These hitters have the odds of guessing correctly on each pitch heavily against them. When wrong guesses begin to pile up they become frustrated and confused. The result usually is a prolonged slump. The guess-hitter is more apt to suffer prolonged batting slumps than are other hitters.. The former usually has a hard time adjusting himself to hitting without guessing, which he is forced to do as it has been the cause of his slump.

Emotional disturbances can affect the batting process enough to cause slow responses in judging the pitch and in swinging at it. These disturbances have their origin in activities involving a person's everyday life . Poor grades in school can emotionally upset the school-boy player. Worries centered around home life may easily create emotional and mental disturbances to both amateur and professional players. A batter who cannot concentrate fully on his hitting cannot become a good hitter. A player who cannot give his undivided attention to the job at hand is in jeopardy of losing that job through failure.

Slumps in themselves cause players to fret and worry. The effects of a slump are often devastating to a player's mental poise. Very few players can overlook continuous failure to hit successfully.

Many players who are in a slump become so discouraged and frustrated that they make up their mind to swing at any pitch, hoping in this way to increase the possibility of hitting safely by increasing the number of swings at the ball. This is a haphazard practice built upon false logic. The writer believes that calmness and an intelligent attitude toward the slump are the most important factors in regaining successful batting results.

Players who lose their confidence often lose their heads. Falling batting averages have raised havoc with many players' emotional and mental stability. Anger, careless swinging, and reckless guesswork on pitches will not improve any player's batting average.

There are two methods of coping with the batting slump. One is to prevent it, if possible, or at least to delay it; the other is to cure it. The writer believes that it is difficult to prevent a slump. It is, however, not too difficult through the application of proper techniques to delay a batting slump. It is also possible through an understanding of the batting process to modify a slump so that it does not become as intense or last as long as it otherwise might.

When Ty Cobb, one of the greatest batters of all time, was in a hitting streak, he tried to maintain his successful physical and mental batting co-ordination as long as possible so as to offset or delay a slump. He did this by cutting down on his daily batting practice so as not to tire himself or spoil the synchronization of body and mind through over-use of these faculties. In other words, he didn't want to wear out his success through over-use. This conservation of his batting prowess was most valuable to him during game time.

Another method of delaying a slump is to bunt often while taking batting practice. This practice develops greater accuracy in following the ball to the proper point before swinging at it. Good bunters as a rule develop a good eye in looking over each pitch. This is the result of training the eye muscles to focus on the ball longer, thus following it longer and looking it over better. This helps a batter to swing only at good pitches.

Some players worry themselves into a batting slump. They feel that the entire success or failure of a team depends upon their own personal progress in each game. This type of player will find himself mentally unable to stand the strain of daily play. Furthermore, players who let their success or failure during the early innings of a game affect them, often find themselves in an unhealthy frame of mind toward the close of the game. Going hitless the first few times at bat in a game certainly does not indicate a slump nor does going hitless for one entire game do so.

Players who can forget a bad day at the plate after they leave the field are less apt to go into a batting tailspin than those who worry a lot. The player who looks upon each game as a new adventure in batting will have less difficulty with slumps than the player who feels that today's game is apt to be a continuation of yesterday's failure.

Smart players offset or delay a slump by changing their batting style to meet changing physical conditions. As they get older players notice changes in their weight, muscu-

*(continued on page 60)*

*James Smilgoff served as a farm team instructor and scout for the Chicago Cubs before going to Taft High School. This is his second article this year on batting. His first "The Swing's the Thing" appeared in the February issue.*

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# Discus Throwing

*By Tom Lieb*

**Track Coach, University of Alabama**

*TOM LIEB was one of Notre Dame's greats, lettering in football, baseball, hockey and track. He was a member of the United States Olympic team after setting a world discus record. He is also assistant football coach at the University of Alabama.*

THE OLD-TIME Grecian event, discus throwing, has attracted considerable attention in recent years. College athletes have taken considerable interest in this event and as a result, their ability and the competition in discus throwing has improved considerably. It is true that we had great discus throwers twenty or twenty-five years ago, but they were few compared to the entries in the event today. In 1920 there were few good discus throwers in competition. That year one member of the Olympic team qualified with a throw of less than one hundred and thirty feet. In the 1924 Olympic try-out the last man to qualify threw one hundred and forty-three feet—proof that competition was improving, and ever since 1924 new records in the discus throw have been made as often as in any other field event.

To prove the fact about new discus records let us start with the writer's world record throw of 156′ 2½″ set in 1924. This mark displaced the record set in 1912. Since that time the world's record has changed hands eight or nine times. I shall list the outstanding performances of the past twenty years, some of which were accepted as American records and others as world records.

| | | |
|---|---|---|
| 1924 | Lieb, Notre Dame | 156′ 2½″ |
| 1925 | Hartranft, Stanford | 157′ 1⅝″ |
| 1926 | Houser, S. California | 157′ 1¾″ |
| 1929 | Krenz, Stanford | 163′ 8¾″ |
| 1930 | Jessup, Univ. of Wash. | 169′ 8⅞″ |
| 1934 | Anderson (Sweden) | 171′ 11¾″ |
| 1935 | Schroeder (Germany) | 174′ 2½″ |
| 1936 | Carpenter, S. California | 173′ 1³⁄₁₆″ |
| 1939 | Fox, Stanford | 172′ 4½″ |
| 1941 | Harris, Indiana | 174′ 8¾″ |
| 1946 | Fitch, Minnesota | 180′ 2¾″ |

Some of these marks were broken before the committee had a meeting to award an accepted world's mark and some are American records and noteworthy performances. (Figures furnished by Jim Kelly of the University of Minnesota.)

With the competition becoming more keen each year, discus throwing has become highly specialized and some men now give their full time to this one event. To pick out any one man and say that he is an ideal type to make a discus thrower is a difficult and uncertain task. There are a few points, however, that can be laid down as a guide. The discus thrower must, first of all, be a man of patience. By that I mean one who is not easily discouraged and will try day after day to perfect his actions. Physically he should be fairly tall and well developed above the waist. A large hand, long arm, and strong back muscles are essentials. I think the tall man has an advantage in that he already has an elevation of possibly a foot or more for his throws. The large hand is necessary or favorable to afford proper grip of the discus and a large hand also aids greatly in guiding the discus so that it starts correctly and does not slip. The points in favor of the long arm are easily seen. The longer the arm the larger the circle the discus will travel through in making the turns before the throw, and as a result the greater the centrifugal force developed will be. A strong well-muscled back that is easily rotated at the waist is another physical necessity. I claim the discus is thrown by the body and not entirely by the arm. The greatest source of power in discus throwing comes from a powerful, snappy rotation of the trunk, the arm and hand supporting the discus swinging like a stone on a string. A man that is tight in the waist or that lacks this waist snap, has a severe handicap no matter how good or powerful his arm may be. With this physical makeup the discus thrower must have agility. He must be quick with his feet, possess co-ordination of hand and foot and, most important of all, he cannot be phlegmatic. He should be slightly excitable in competition, though not nervous. He should possess that type of temperament that will tone up in competition. Yet he must be able to relax completely when he enters the ring.

As for training rules for discus throwers, I might here mention a few points to be observed. Eat regularly the food to which you are accustomed. On the day of the meet have a good steak about three hours before your competition and eat nothing immediately before competing. Your early season exercises if confined to a gymnasium should be with wall pulleys with light weights, the action always being in a throwing or pushing manner away from the body. Do not work with or lift heavy dumb-bells! My reason for this statement is that throwing muscles should be long and elastic and not the lifting type that are short and bulging. Along with work with the wall pulleys a very simple exercise is to rotate the trunk at the waist by means of swinging the arms parallel to the floor as far to the right and to the left as possible without moving the feet. The latter exercise is done in a relaxed manner, and will aid greatly in developing the back and chest muscles used in throwing. It will also loosen up the tight-waisted individuals. A training rule that applies to a great many events is to conserve your energy for the test or competition. In other words, don't overwork your arm in practice. A dozen throws a workout are plenty. Do not work hard during the week. Save your best throws for the meet.

A discus thrower should not pitch baseball or throw the javelin as they are too violent a snap action for the arm, such action, being contrary to the discus motion, detracts from the development for that purpose and also uses up too much energy. The discus thrower may put the shot, however, without serious damage to his throwing ability as the shot-putting motion involves a powerful, snappy rotation at the waist, and the arm action is not a violent, jerky motion. Very few men have been able to throw both the discus and the javelin well.

In taking up the actual throwing, we must first consider the method of holding the discus in the hand. The grip on the discus that I used and recommend is to spread the fingers apart and grip the disc most with the little finger, less with the third and second, with the index finger just over the edge, all of the fingers of the hand being behind, or to the rear of a line through the center of the discus. The thumb being extended touches on the wood, midway between the outer rim and center plate. My reason for this type of grip is that the greatest driving power and follow-through value can be derived by having the fingers well to the rear of the discus. The reason for gripping the discus with the little finger is to safeguard against slipping on a wet day and also to apply the spin or rotary motion to the discus while in the air.

### *How to Get Elevation*

In learning to throw, it is best to practice the finishing throw without the steps or revolution, using only the rotation at the waist with the arm extended and the whip at the end, practicing for co-ordination of body and arm, also the proper elevation, spin and sail of the discus. This preliminary exercice must be perfected before you attempt any further complication of the event. Two very important points that are difficult to master are to secure the proper elevation and sail of the discus. A satisfactory guide and elevation is to have the discus rising on such a plane that the thrower can just see the

*(continued on page 62)*

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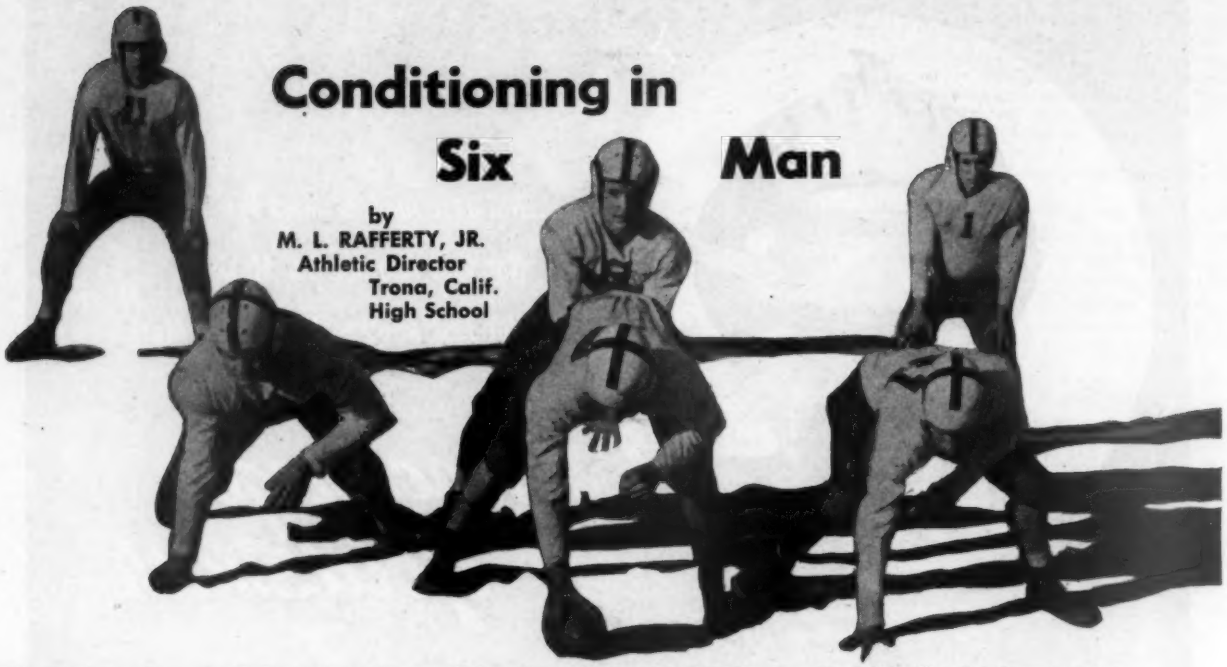
# Conditioning in Six Man

by
M. L. RAFFERTY, JR.
Athletic Director
Trona, Calif.
High School



Picture above shows the T Formation. Pictures below show the punt and single-wing formations for the six-man game.

WHEN the average football coach speaks of getting his men in "condition", he means two things:

(1) Ability to play a maximum number of minutes at top speed without showing appreciable signs of fatigue.

(2) Ability to absorb punishment without deleterious effects.

If the team makes reasonable progress toward these twin goals during the season a coach is usually happy.

Six-man football adds a third standard by which the success or failure of the conditioning program may be measured: Is it actually speeding up the muscular and neural reactions of each player?

The third criterion is probably the most important. In no other body contact team sport is speedy reaction so vital. The fortunes of war change with bewildering rapidity in six-man football. For one thing, the reduced number of players makes an intercepted pass a much deadlier boomerang than it is in the eleven-man game. A fast defensive back who can snag an opposition pass from the ozone has almost twice as much chance, other conditions being equal, of running the pigskin back for a long gain. The only hope his opponents have of stopping him quickly lies in *Condition* — alert reactions, lightning-fast movements, and swift mental responses to changing game situations.

Similarly, the rules of six-man football deliberately put a premium on the developing of such co-ordination. A fumble may not only be recovered but *advanced* by either team. That means instantaneous and unpredictable switches in the course of events. Furthermore, the rules which require some sort of pass on every play except a kick, actually make fumble situations more likely to occur than in the older kind of football. Thus, we have a danger-laden combination of circumstances—a game in which fumbles are more likely to occur, plus a game in which any recovered fumble is apt to be doubly dangerous for the team which fumbles.

What are the implications of the foregoing as far as conditioning is concerned?

Obviously, we who coach the six-man game are confronted with the necessity of not only developing the conventional qualities of endurance and ruggedness, but also the new and relatively unexplored factor of speeding up reaction time. The coach who succeeds in developing the traditional qualities but who neglects the new, will find that he has trained his men for a totally different game—eleven-man football.

Unfortunately, many of the nation's six-man mentors are doing just that, and doing it deliberately, on the unfounded assumption that the new game is just a small-scale copy of the old. They are turning out slow-moving, slow-thinking linemen who would

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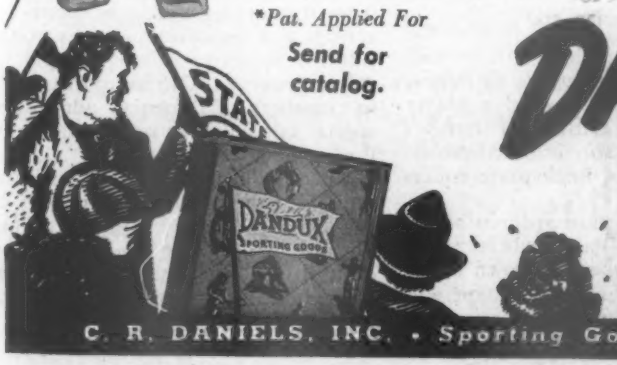


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do fine in an ordinary eleven-man game, but who are pitifully lost in the new game. The situation in regard to backfield conditioning is more similar in the two games, but even here slowness in reaction time will show up much more glaringly in six-man than in eleven-man football.

The sad part of all this is that in many sections of the country *most* of the competing six-man teams are being trained in this way. The spectator is thus confronted with the gloomy spectacle of *two* slow-moving, slow-thinking teams playing each other—a situation comparable to watching a basketball game in which no player can move faster than a walk. What a travesty on the real game!

Speaking of basketball brings up the monumental misconception which prevails throughout the Midwest, that six-man football is a sort of outdoor basketball. Observation of the game as it is played in Wisconsin and Illinois, especially, has indicated that this type of thinking is prevalent in that area. Passes predominate in every series of downs, and the players use a sort of "check block" technique reminiscent of the cage sport. This type of offense certainly develops passing ability, but at the expense of the other fundamental skills, such as blocking and tackling, which make football such a distinctive and fascinating game.

Intersectional games, of course, are so far unknown in the six-man game, and thus no positive check is available on the relative merits of this "basketball" version of the new game. Research conducted in available materials, however, has convinced me that one of our better California teams, utilizing primarily a ground game, could probably sow consternation in Midwest circles. Interestingly enough, the strong running attack is to be found mostly on the two Coasts, particularly in Maryland and California.

But we are interested here principally in how to develop a well-rounded conditioning program for six-man football, whether the type of offense be primarily passing or running.

Here are the conditioning principles which I have developed over a period of seven years and which have helped turn out six championship teams during that time:

(1) Utilize most of the old, eleven-man training devices as part of your basic program. Let your backs run through the tire casings. Use the tackling and blocking dummies but try to coach individual effectiveness rather than "gang" tactics. Your "gang" just isn't there in the new

*M. L. Rafferty Jr. lettered in football and Rugby at U.C.L.A. His coaching record at Trona is an enviable one. His six-man teams have been undefeated since 1941 and untied since 1942. In 1946 and '47 they won the public school six-man football championship of California.*

game. Your players—linemen and backs alike—*must* be proficient at both shoulder and body-blocking. Work them for long hours on man-to-man blocking and tackling. Let them trade off on assignments.

(2) If you have a track, or anything that vaguely resembles a track, utilize it. Make four 440-yard laps per practice period a "must" on your training list. I have found it best to start my boys with only two laps during the first couple of weeks of practice, and work up gradually to two laps at the start of practice and two before hitting the showers. Only hard running for distance, and lots of it, will build up the wind necessary for the six-man game. Remember, the ball will cover almost *four times* as much territory in a six-man game as it will in an average eleven-man game. That means that a six-man player must be able to go *farther* as well as *faster* than his eleven-man counterpart.

(3) Practice all your men on sprint starts. Let them run short dashes in full equipment about two or three times each week, but don't start them with the conventional "On your Mark—Get set—Go!" system. Instead, let them wait in their places for varying lengths of time, and then suddenly start them with a gun or whistle. Try to catch them napping. Train them to expect the unexpected. Let your backs run 50-yard dashes, and your linemen 20 or less.

(4) Five minutes of fast calisthenics immediately before any scrimmage or contact work should be observed religiously. Have five or six basic drills numbered, and call them in rotation. Then vary the procedure by calling the drill numbers at random. Try to build up rapid responses to changing situations.

(5) Calisthenics should involve the use of all muscles which will be utilized in the contact activity to follow. It is as dangerous to send a player into contact work with "cold" muscles as it is to send him into scrimmage with improper or inadequate equipment.

(6) One of the most arduous activities, in a close game where many kicks are used, is getting down under punts. A lineman in poor shape will be eliminated in short order in such a game. Some time each week should be allotted to building up speed and endurance for this specific activity. Divide your ends and centers into three-man teams and let them take turns going down under punts. To lend realism to this drill, put a three-man backfield down the field and have them practice running each kick back. No other drill that I know of will develop stamina in your linemen as well as this one.

(7) To build up reaction speed and instantaneous response to the unexpected, line your team up in a broken-field or "checkerboard" formation. Give several of your backs a football each and scatter them at random throughout the formation. Then, on the whistle, call out the name of one back and let him try to carry the ball to a designated point. The remainder of the team, particularly those nearest the man called, will stop him as quickly as possible. This drill will cut down perceptibly the time previously required to respond to the unexpected.

(8) In drilling with the blocking and tackling dummies, vary the usual head-on approach with a series of cut-back runs. For example, start your blocker or tackler out on a run at right-angles to the dummy. Have him head at full speed toward a marked line, then suddenly cut toward the dummy to make the block or tackle. On downfield blocking practice, wait until the blocker has approached within three or four strides of the target dummy before calling out the direction from which the block is to be thrown.

These basic rules of conditioning, modified according to need and individual requirements, will go a long way toward putting a group of boys in shape for a six-man football season. Coaches with a little imagination can think of improvements and variations of these fundamental precepts.

Are there any special training rules for six-man football?

Some coaches on the Coast have been experimenting with diets rich in dextrose, on the theory that a game demanding a series of speedy reactions and muscular responses would call for an extraordinary supply of caloric energy. Others, particularly in southern California, administer special salt jellies at regular intervals during practice sessions.

The traditional ban on smoking must be re-emphasized for players of the New Football. Wind is all-important, and there is no getting around the fact that for nineteen players out of twenty, nicotine intake cuts down drastically on wind. I

*(continued on page 65)*

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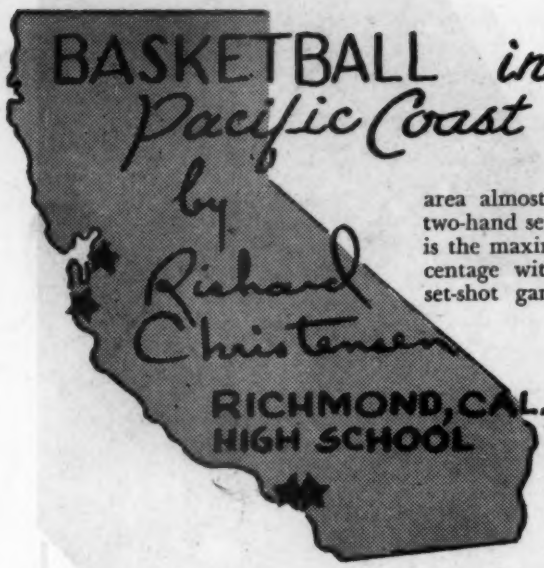
# BASKETBALL *in the* SOUTHERN DIVISION *Pacific Coast Conference*




*DICK Christensen directed intramural athletics while in the Navy. He has coached at Richmond for the past three years and his teams have shown steady improvement. In '45-'46 they won 15, lost 11; in '46-'47 they won 19, lost 10; in '47-'48 they won 21, lost 7.*

FOR the past three or four years, I have read Nelson Nitchman's resumes of the N.C.A.A. and Invitational tournaments in Madison Square Garden with a great deal of interest. It is always very interesting for a coach to read about the style of play used in other sections of the country by leading college teams. With this thought in mind, I will try to explain the style of play used by our teams in the Southern Division of the Pacific Coast Conference—University of California, Stanford, University of Southern California and U.C.L.A. The diagrams in this article are based on observation of each team at least twice in conference games.

Before considering each team individually, it may be well to make a few general observations in regard to style of play. Southern Division players almost without exception shoot their set shots one-handed. Our college players have learned to use this shot very accurately up to twenty-five feet, and in the last seven or eight years, it has been used in this area almost to the exclusion of the two-hand set. I would say thirty feet is the maximum radius for good percentage with one hand. The long set-shot game, which is part of a team's repertoire in other sections, is therefore not seen to any extent in California. Quite a few of the players are shooting their free throws in this method also. The advisability of one-hand free-throwing has been debated considerably by local coaches.

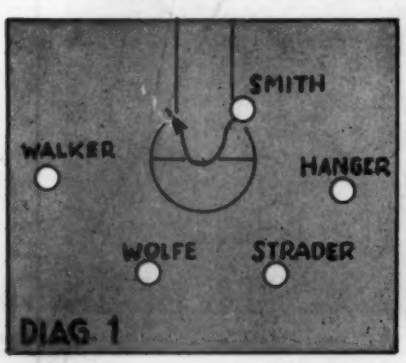
All four teams have relied on a single-post style of offense most of the time. The only exception was U.C.L.A. which played its early games with a single post; but in the last University of California series used a three out, two in, weaving style of play. University of Southern California, Stanford, and California all relied on a single post throughout the year. The fast break was in evidence in most games but none of our teams used it consistently through the year as their major offensive style.

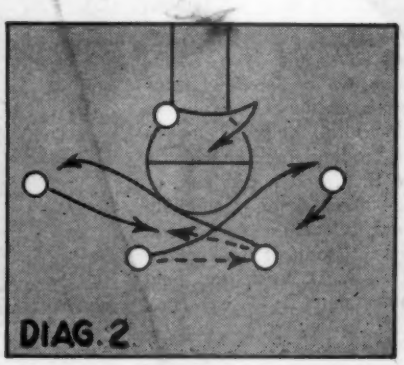
Defensively, we saw much variety this year. Stanford used a 2-3 zone almost exclusively; California played its well known shifting man-to-man; University of Southern California played a strict man-to-man, switching only as a last resort; U.C.L.A. played straight man-to-man up here, but is reported to have used a zone occasionally. U.C.L.A. varied its man-to-man early in the campaign with a back court press a good part of the game.

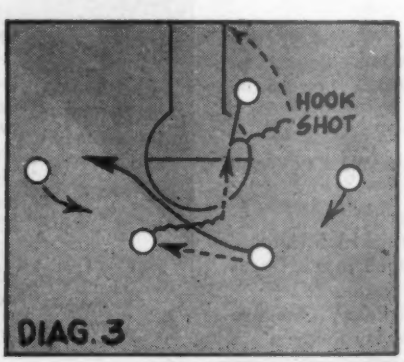
Each of the four teams will be considered individually in the following paragraphs.

The California Bears at this writing have already cinched the title with ten straight conference wins and no defeats, five full games ahead of University of Southern California in second place, Coach Nibs Price's team was made up of a rangy group of rebound experts who could also play a running game. They were paced by Andy Wolfe and Chuck Hougher, a pair of consistent scorers which no other team could match. In addition, Wolfe was a tremendous team leader whose presence made the difference in the several 1 or 2 point Bear wins. Defensively, California used their shifting man-to-man exclusively. The Bear forward line shifted on every cross screen or cut, and the guards shifted with the forwards exceptionally well on vertical screens and drives. The center in general stayed with his man at all times. The players used their defense well in stopping most screening attacks. Occasionally screen-roll plays shook the screener loose as the defensive man switched. While not a tenacious defense, it was consistently good. On occasions the Bear forwards exerted back court pressure. In the second University of Southern California game particularly, this strategy enabled California to overcome a substantial lead as the Trojan guards made numerous errors against the press.

Offensively, California played a free-lance type of game, fast-breaking whenever possible. For tall players, the Bear forwards were exceptionally



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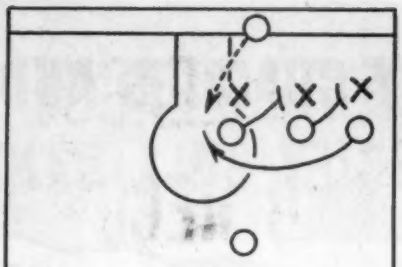
fast break men. In the later games, the other teams deliberately slowed up the pace to discourage California's fast break. Their fast break was a straight line break with the dribbler driving down the middle when possible.

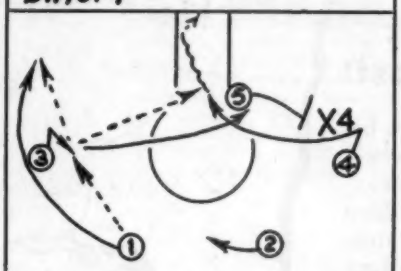
The Bear set offense was a free-style single post, with a four-man weave used considerably, and interposed with occasional set plays. In general they set up as shown in Diag. 1. The four outer men passed the ball rapidly, screening for each other occasionally. Wolfe, Houger, and Walker shot well from 20-25 feet off the weave, and the tall forward line rebounded hard on all shots. A good portion of California's points came on rebounds by Houger, G. Walker and Smith of their replacements. B. Walker and Cuneo. All were 6'3" or better. Most of the scoring maneuvers were individual plays off the free-play set-up. Diag. 2 shows the California weave. Occasionally the ball was passed into the post and Smith used a hook shot with fair success (Diag. 3). California shook Wolfe loose for several baskets on the out-of-bounds play shown in Diag. 4. The free-style type of play used by the champions makes it difficult to diagram their maneuvers. For the same reason the Bears were a tough team for opponents to catalogue and prepare for.

The University of Southern California, ably coached by Sam Barry, ended in the runner-up spot. The Trojans presented a very well-coached team but were shy of dangerous offensive scorers. Defensively the Trojans played assigned man-to-man defense at all times. They were consistently tough defensively, losing twice to California by one point. Occasionally their defensive forwards switched on cross screens, but in all other cases the defensive men loosened up and slid through on screens. One of the dominant features of University of Southern California was their man-to-man blocking out under the defensive backboard. Although called for illegal blocking on several occasions, this defensive blocking enabled the Trojans to hold their own against the taller Bears under the California goal much of the time.

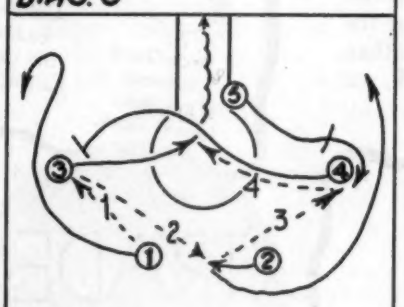
On offense, University of Southern California displayed a carefully arranged single-post set pattern at practically all times. The Trojans play a slow break traditionally, and are very rarely conscious of the fast break. Their ball-control game is of the optional type with two or three basic patterns and numerous options off each pattern. In addition, they



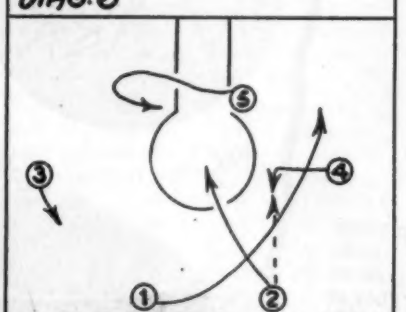

DIAG. 4



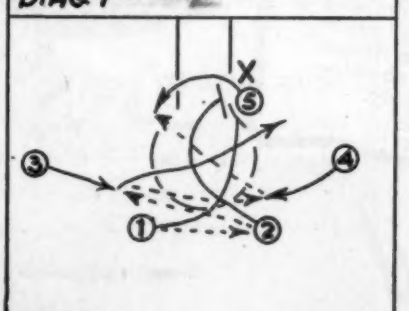

DIAG. 5




DIAG. 6




DIAG. 7




DIAG. 8

use several spot plays, set up by a signal at any time. The well known U.S.C. continuity is shown in Diagrams 5 and 6. This year because their center, Hannum, is 6'6" and a good pivot scorer and rebounder, Barry used this sequence less frequently than in former years. In Diag. 5, 01 passes to 03 and drives around the outside, the first option being a return pass to 01 as he drives into the basket. The best option is to feed 04 who cuts off a screen set by center 05. A third option is a return pass to 03 as 03 cuts off 04 after passing to 04. Diag. 6 demonstrates the clever continuity of this system. 01 passes to 03 and drives by. 05 screens for 04 as before. However, if none of the options are open, 03 returns the pass to the other guard 02 who then passes to 05 as shown. 04 in the meantime has continued on to screen for 03. All of the same options are open as in the first play. This continuity can be continued indefinitely. The Trojans frequently used the spot play shown in Diag. 7 with success. As the guards brought the ball across midcourt, one of the forwards suddenly cut into the middle, took a quick pass and the guard scissored around him as the center cleared. Usually the second cutter was clear. A very clever play designed to free the center for a short set shot is shown in Diag. 8. The four outer players went into a figure 8 weave, setting a double screen on the defensive center. The U.S.C. center then pulled out behind the weave for a clear set. It went something like this—01 and 02 went through to set a double block for center 05 off the weave. 05 then pulls out around the weave and is clear for a 10-foot set shot. Since Hannum, the Trojan center was their main offensive threat, U.S.C. worked off the post more than usual. Hannum hooked well with either hand off a vigorous pivot fake. He freed himself frequently as shown in Diag 9. Hannum varied his individual play with return passes to the cutters. U.S.C. also used the inside screen occasionally to free their forwards, Sharman and Androff who are good one-hand shots. In Diagram 10, 02 passes to 04, screens inside and continues into corner. There are several options. 04 can dribble off screen for a shot; or can feed 02 back in corner. 02 then can shoot or work off post man 05. This could also serve as an over-loading offense against a zone defense.

U.C.L.A., the defending conference champions, are in third place at present. The Bruins keenly miss Don

*(continued on page 44)*

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| ★ **Jack Homel**, Detroit Tigers | ★ **Andy Lotshaw**, Chicago Cubs |
| ★ **Ed Froelich**, Boston Red Sox | ★ **Dr. Charles Lacks**, Boston Braves |
| ★ **George Lentz**, Washington Senators | ★ **Allen "Dusty" Cooke**, Philadelphia Phillies |
| ★ **James Tadley**, Philadelphia Athletics | ★ **Richard Rohde**, Cincinnati Reds |
| ★ **Bob Bauman**, St. Louis Browns | ★ **Will Schaeffer**, New York Giants |
| ★ **Ed "Packey" Schwartz**, Chicago White Sox | ★ **Dr. Charles Jorgensen**, Pittsburgh Pirates |

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## IN THE WEST

**1. ADAMS STATE COLLEGE**
**Alamosa, Colorado, June 14-19**
Neal Mehring, Director
Staff: Fritz Crisler, Frank Leahy, Clair Bee, Hank Iba, Frank Cramer
See advertisement page 66

**2. COLORADO HIGH SCHOOL COACHES ASSOCIATION**
**1532 Madison, Denver, Colorado, August 23-28**
N. C. Morris and Don R. DesCombes, Directors
Staff: Jeff Cravath, Bowden Wyatt and others

**3. COLORADO, UNIVERSITY OF**
**Boulder, Colorado, June 17-July 23, July 27-August 28**
Harry G. Carlson, Director
Staff: Bernard Hughes, Frank Potts, Harold Meyers, Frank Prentup, Dallas Ward, Frosty Cox, Roland Balch

**4. UTAH HIGH SCHOOL COACHES ASSOCIATION**
**Salt Lake City, Utah, August 9-14**
H. B. Linford, Director
Staff: To be announced.

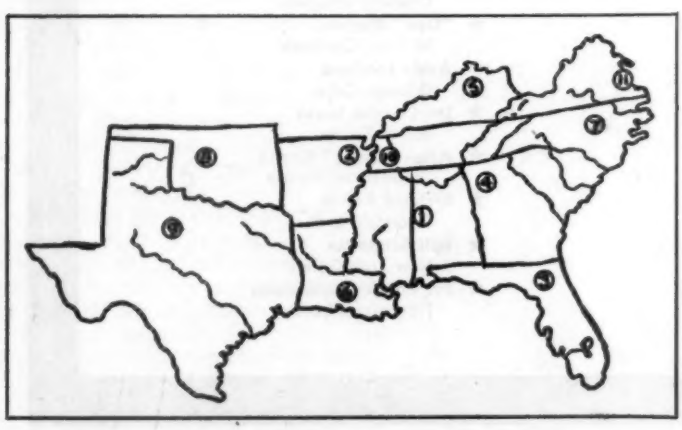
**5. UTAH STATE AGRICULTURAL COLLEGE**
**Logan, Utah, June 7-11**
E. L. Romney, Director
Staff: Fritz Crisler, Jack Gardner

**6. WASHINGTON STATE HIGH SCHOOL COACHES ASSOCIATION**
**University of Washington, Seattle, Washington**
**Basketball August 23-25**
**Football, August 25-28**
Bill Nollan, Director
Staff: Fritz Crisler, Henry Iba, Frank Cramer
See Advertisement page 68

**7. UNIVERSITY OF WYOMING**
**Laramie, Wyoming, August 9-13**
Glenn Jacoby, Director
Staff: Murray Warmuth, Alvin "Doggie" Julian

**8. MONTANA UNIVERSITY COACHING SCHOOL**
**Missoula, Montana, July 26-30**
Douglas A. Fessenden, Director
Staff: Lynn Waldorf, Adolph Rupp
(Not shown on map)
**Look for advertisement, June issue**

## IN THE SOUTH



**1. ALABAMA, UNIVERSITY OF**
**Tuscaloosa, Alabama, August 25-28**
H. D. Drew, Director
Staff: H. D. Drew, Floyd Burdette and University of Alabama Staff.

**2. ARKANSAS STATE COLLEGE**
**State College, Arkansas (Jonesboro) June 17-19**
J. A. Tomlinson, Director
Staff: To be announced

**3. FLORIDA, UNIVERSITY OF**
**Gainesville, Florida**
Date and staff to be announced

**4. GEORGIA COACHING CLINIC**
**Atlanta, Georgia, August 12-19**
Dwight Keith, Director
Staff: To be announced

**5. KENTUCKY, UNIVERSITY OF**
**Lexington, Kentucky**
Bernie Shively, Director
Staff: Date and staff to announced

**6. LOUISIANA HIGH SCHOOL COACHES ASSN.**
**Southwestern Louisiana Institute, Lafayette, La. August 11-13**
Woodrow Turner, Director
Staff: To be announced

**7. NORTH CAROLINA, UNIVERSITY OF**
**Chapel Hill, North Carolina, August 9-14**
Tom Scott, Director
Staff: Carl Snavely, Tom Scott, R. A. Fetzer, Bunn Hearn, Dick Samerson, Richard White

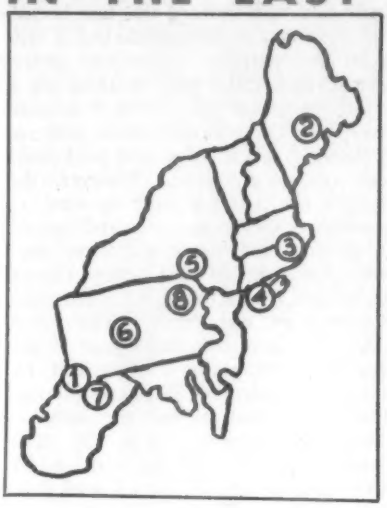
**8. OKLAHOMA COACHES ASSOCIATION**
**Skirvin Hotel, Oklahoma City, Okla. August 16-20**
Clarence Breithaupt, Director
Staff: Carl Snavely, Howie Odell

**9. TEXAS COACHES ASSOCIATION**
**Abilene, Texas**
Dates and Staff: To be announced

**10. UNION UNIVERSITY CLINIC**
**Jackson, Tennessee**
Dates and Staff: To be announced

**11. WILLIAM AND MARY COACHING SCHOOL**
**Williamsburg, Virginia**
Marty Baldwin, Director
Dates and Staff: To be announced

# IN THE EAST



**1. BETHANY COLLEGE**
Bethany, West Virginia, August 16-20
John Knight, Director
Staff: Harold Drew, Don Faurot
See Advertisement page 58

**2. COLBY COLLEGE**
Waterville, Maine, June 10-12
E. W. Millett, Director
Staff: Ray Eliot, Nelson Nitchman, Howard Hobson

**3. CONNECTICUT, UNIVERSITY OF**
Storrs, Conn., August 23-27
George Van Bibber, Director
Staff: J. O. Christian, Blair Gullion and Univ. of Connecticut staff.

**4. KINGS POINT MARITIME ACADEMY**
Kings Point, L. I., New York
Dates and staff: to be announced

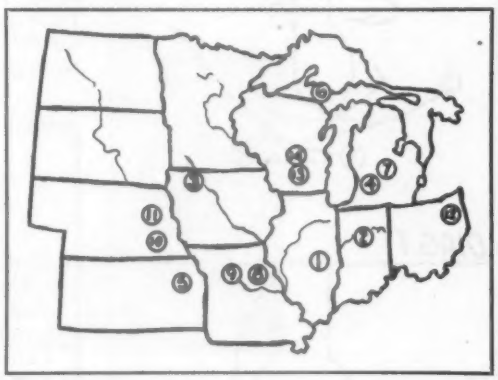
**5. NEW YORK BASKETBALL COACHING SCHOOL**
Hancock, New York, August 19-21
John Sipas, Director
Staff: Royner Greene, John Lawther, Whitey Anderson
See Advertisement page 65

**6. PENNSYLVANIA STATE COLLEGE**
State College Pennsylvania, June 8-Sept. 18.
M. R. Traube, Director
Staff: John Lawther, Bob Higgins, Joe Bedenk, Chick Warner and others.
See Advertisement page 70

**7. WEST VIRGINIA, UNIVERSITY OF**
Morgantown, West Virginia, June 3-July 14.
F. J. Holter, Director
Staff: DeGroot, Lee Patton, Prof. Henry Stone, Steve Harrick, Art Smith
See Advertisement page 60

**8. EASTERN PENNSYLVANIA SCHOLASTIC COACHING CLINIC**
State Teachers College, East Stroudsberg, Pa., June 21-25
Marty Baldwin, Director
Staff: Bobby Dodd, Biggie Munn, Herman Hickman, Alvin "Doggie" Julian, Charley Gelbert.

# IN THE MIDDLE WEST



**1. ILLINOIS HIGH SCHOOL COACHING CLINIC**
Urbana, Illinois, August 16-21
Staff: To be announced.

**2. INDIANA BASKETBALL COACHING SCHOOL**
Berry Bowl, Logansport, Indiana, August 12-14
Cliff Wells, Director
Staff: To be Announced

**3. IOWA HIGH SCHOOL COACHING SCHOOL**
Templar Park, Spirit Lake, Iowa
Dates and Staff To be announced

**4. KALAMAZOO COLLEGE**
Kalamazoo, Michigan, June 14-16
Bob Nulf, Director
Staff: Paul Brown, Cleveland Browns Staff
See Advertisement page 54

**5. KANSAS STATE HIGH SCHOOL ACTIVITIES ASSN.**
Topeka, Kansas
E. A. Thomas, Director
Dates and staff: To be announced

**6. NORTHERN MICHIGAN COLLEGE OF EDUCATION**
Marquette, Michigan, August 9-13
C. V. Money, Director
Staff: To be announced

**7. SOUTHERN MICHIGAN COACHING SCHOOL**
Dates and Staff: To be announced

**8. MISSOURI COACHING SCHOOL**
University of Missouri, Columbia, Missouri, June 22-24
Don Faurot, Director
Staff: Ray Eliot, Don Faurot, John Simmons, Hank Iba, Wilbur Stalcup, Tom Botts, O. J. DeVictor, Dr. Jack Matthews.

**9. NATIONAL JR. COLLEGE COACHING SCHOOL**
Location and Dates will be announced
Capt. E. P. Coleman, Director
Staff: Fritz Crisler, Frank Leahy, "Ox" De Grosa

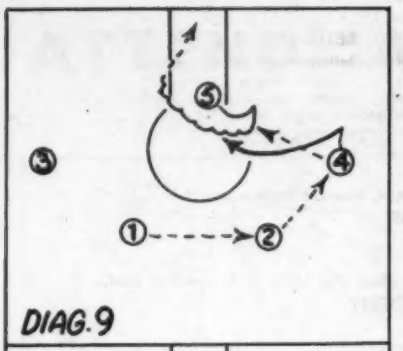
**10. NEBRASKA HIGH SCHOOL ACTIVITIES ASSN.**
Lincoln, Nebraska
O. L. Webb, Director
Dates and Staff: To be announced

**11. NEBRASKA, UNIVERSITY OF**
Lincoln, Nebraska Summer School
Louis Means, Director
Staff, University of Nebraska Staff

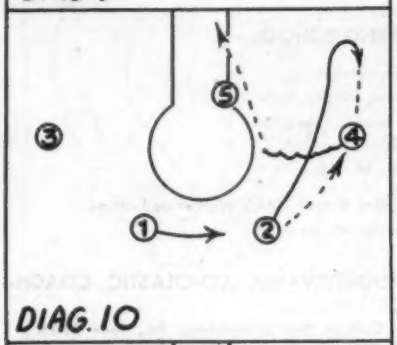
**12. OHIO HIGH SCHOOL FOOTBALL COACHING SCHOOL**
Canton, Ohio, August 9-14
J. B. Robinson, Director
Staff: Don Faurot, Bobby Dodds, Bob Higgins, Herman Hickman, Paul Brown, Jim Aiken, Jack Blott, Ben Osterbaan, Sid Gillman, Art Valpey.

**13. WISCONSIN ASSN. COACHING SCHOOL**
Madison, Wisconsin
Dates and Staff: To be announced

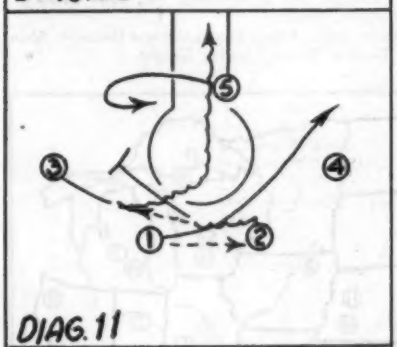
**14. WISCONSIN, UNIVERSITY OF**
Madison, Wisconsin, June 25-August 20
John Guy Fowlkes, Director
Staff Arthur Mansfield, Walter Bokke
See Advertisement page 61 March Issue



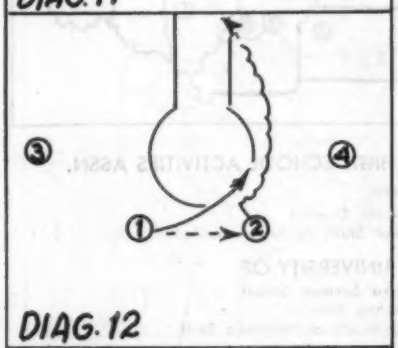

DIAG. 9



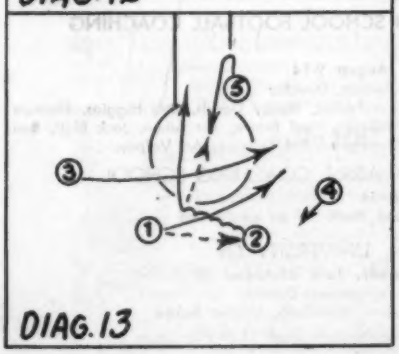

DIAG. 10




DIAG. 11




DIAG. 12




DIAG. 13

*(continued from page 40)*

Barksdale, their great center. Although most of their personnel is the same, they lost their offensive rebound strength when Barksdale graduated. With considerable talent, the Bruins have never quite been able to reach their peak. Nevertheless they gave California a tough battle and almost nipped the Bears in the final two games. Coach Johns changed the U.C.L.A. tactics completely.

U.C.L.A. played a forcing man-to-man defense together with a race horse fast break in the first half of the season. Sparked by two splendid ball players, Johnnie Stenick at forward and Dave Minor at guard, the Bruins had a dangerous fast break to handle. However, these tactics weakened their defense and seemed to wear down the Bruin regulars late in the game. The race horse game seemed to fit right into California's hands; and with superior shooting and backboard control, the Bears whipped U.C.L.A. handily in the first two games.

In the second series, U.C.L.A. looked like an entirely different team, so radically had they changed their style. They forsook the pressing defense and fast break, and deliberately slowed the game to a waltz. The strategy worked well and California barely won each game in the closing minutes. Besides changing their defense and eliminating the fast break, the Bruins also demonstrated a different set pattern in the two series. In the first series they worked off a rapid four-man flat figure 8 around the post. They worked their screens, reverses, give-and-goes, and post plays well off their weave. However, the players could never seem to slow up from their race horse pace and missed numerous easy shots. Likewise they were weaving so fast, they missed many of the scoring opportunities inherent in the "mill." The plays U.C.L.A. used off the figure 8 are shown in Diagrams 11, 12 and 13. They are typical of this type offense. The circulation started the same as California's weave, (Diag. 2). The Bruins moved rapidly with quick fakes, changes of direction, and driving dribbles off the natural weave-screens. Diagram 11 illustrates the screen play which is set up on every pass of the weave. 01 passes to 02 and screens; 02 passes to 03 and screens; 03 shakes loose off 02's screen and drives in for a shot as center 05 pulls out of the way. In Diagram 12, 02 changes direction as defensive men anticipate the movement in the weave. The Bruins used this trick

*(continued on page 48)*

# STATE BASKETBALL TOURNAMENTS

With the results not available from eight states, the average score of the winning team was compiled and was found to be 42.3; of the losing team, 34.2. Thus the average margin of victory in the tournaments was eight points. Sectional winning averages were computed and the East North Central section which includes the states of Indiana, Illinois, Michigan and Wisconsin was highest with 49.3. (It is interesting to note that these same states had the highest sectional average in the track survey which appeared in our January issue). Next were the East South Central states of Kentucky, Tennessee and Alabama with 42.5. Third highest was the West North Central section which includes Minnesota, Iowa, Missouri, North Dakota, South Dakota and Nebraska, with 42.0. Fourth were the New England states of Maine, New Hampshire and Connecticut with 41.7. Fifth were the Mountain states of Montana, Idaho, Colorado, New Mexico, Utah and Nevada with an average of 40.0. Sixth were the South Atlantic states of Virginia, West Virginia, North Carolina, Georgia and Florida with a 39.7 average. Last were the West South Central states of Arkansas, Louisiana, Oklahoma and Texas with an average of 38.0. With data from eight states still lacking it was found that eight coaches had winning teams in both the 1947 and the 1948 tournaments. They are the following: Tom Stanton, Beaumont High School, St. Louis, Missouri. Aubrey Givens, Grand Island, Nebraska. M. P. Caskey, Bennettsville, South Carolina. George Houk, Webster, South Dakota. Sam Lawson, Norton, Virginia. Fred Strange, Havanna, Florida. John Wilson, Mass, Michigan. Gordon McKernan, Pinkerton Acadamy, New Hampshire. Individual high score for the country was made by the Pinckneyville team from Illinois which defeated Rockford East 65-39. For a complete resume of the tournament see pages 46 and 47.

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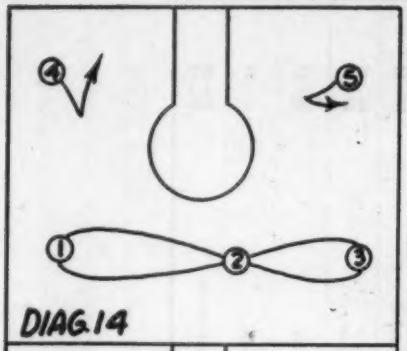
# 1948 STATE BASKETBALL TOURNAMENTS

| | WINNER | COACH | RUNNER-UP | COACH | SCORE |
|---|---|---|---|---|---|
| **ALABAMA** | A—Etowah County (Attalla)<br>B—Hubbertville (Fayette) | J. E. Glover<br>Wiley Hillongsworth | McGill Institute (Mobile)<br>Corner (Warrior) | Ray Dicharry<br>P. B. Vines | 36—25<br>18—17 |
| **ARIZONA** | Tucson | B. C. Doolen | Phoenix Union | R. H. Robinson | 49—46 |
| **ARKANSAS** | A—Fayetteville<br>B—Oden | Glen Stokenberry<br>Ode Maddoy | North Little Rock<br>Marshall | H. B. Schwartz<br>C. E. Medley | 36—16<br>51—45 |
| **COLORADO** | AA—Manual Training (Denver)<br>A—Lakewood<br>B—Burlington | Roy Byers<br>Chester Riley<br>C. Tolce | South H. S. (Denver)<br>Frederick<br>Palisade | F. D. Ketcham<br>Alexander Tesene<br>Jack Stewart | 42—40<br>38—34<br>35—25 |
| **CONNECTICUT** | A—Hillhouse (New Haven)<br>B—Lyman Hall (Wallingford)<br>C—Ellsworth | Sam Bender<br>Fred Schipke<br>Albert Loeffler | Torrington<br>Shelton<br>Bloomfield | Cornelius Donohue<br>Vincent Murray<br>John Paterno | 37—29<br>48—38<br>45—43 |
| **FLORIDA** | A—Miami Senior<br>B—Seabreeze (Daytona Beach)<br>C—Havana | Vincent Schaeffer<br>A. K. McBride<br>Fred Strange | Pensacola<br>Pompano<br>Chumuckla (Milton) | Ralph Sneed<br>E. F. Carmichael<br>C. R. Ealy | 39—26<br>29—17<br>51—41 |
| **GEORGIA** | B—Valdosta<br>C—Montezuma | A. W. Basemore<br>Bill Martin | Glenville<br>Portal | J. D. White<br>A. D. Milford | 37—24<br>27—25 |
| **IDAHO** | A—Lewiston<br>B—American Falls | Wes Latham<br>Ron Pierson | Preston<br>Kendrick | Bob Bunker<br>Ross Armitage | 35—33<br>43—36 |
| **ILLINOIS** | Pinckneyville | Merrill Thomas | Rockford East | James Laude | 65—39 |
| **INDIANA** | Lafayette | Marion Crawley | Evansville Central | Walter Riggs | 54—42 |
| **IOWA** | Manning | C. W. Steneker | Davenport | Paul Moon | 42—36 |
| **KANSAS** | AA—Lawrence<br>A—Buehler<br>B—Greensburg | Chalmer Woodard<br>Verl Ohmart<br>Willis Lobdell | Newton<br>Russell<br>Sharon | John Ravenscroft<br>Harold Elliott<br>Powell McGuire | 38—36<br>47—36<br>37—34 |
| **KENTUCKY** | Brewers | McCoy Tarry | Maysville | Earle D. Jones | 56—48 |
| **LOUISIANA** | AA—Jesuit (New Orleans)<br>A—Natchitoches<br>B—Denham Springs<br>C—Mecux | Gernon Brown<br>Tom Elkins<br>Grady Hornsby<br>R. L. Rupert | Holy Cross (New Orleans)<br>Morgan City<br>Marthaville<br>Bienville (Friendship) | L. G. Fredericks<br>A. Harris<br>Leonard Fowler<br>B. K. Smith | 37—29<br>54—48<br>50—40<br>51—51 |
| **MAINE** | A—Cheverus<br>B—Farmington<br>C—Stevens Acad. (Blue Hill) | William Curran<br>John Bodnarik<br>Lloyd Hatfield | Baugon<br>Pemetic (S. W. Har.)<br>West Paris | Fred Barry<br>Harry Hayes<br>Clarence Reid | 35—34<br>55—38<br>39—38 |
| **MICHIGAN** | A—Jackson<br>B—St. Joseph<br>C—Milan<br>D—Mass | Donald Ogden<br>Leon Burgoyne<br>Frederick Sukup<br>John Wilson | Port Huron<br>St. Andrew<br>Saginaw<br>Bridgman | Reed Laughlin<br>Napoleon Ross<br>Michael Lascrcaak<br>Walter Briney | 54—37<br>36—27<br>45—42<br>55—45 |
| **MINNESOTA** | Bemidji | Mike Laquther | Hopkins | R. S. Mastroid | 39—29 |
| **MISSOURI** | Beaumont (St. Louis) | Tom Stanton | St. James | Robert C. Brener | 44—35 |
| **MONTANA** | A—Anaconda<br>B—Hardin | Mike O'Leary<br>Hugh Cottam | Billings<br>Hamilton | Roy Morin<br>Lawrence Potter | 47—43<br>51—39 |
| **NEBRASKA** | A—Grand Island<br>B—Seward | Aubrey Givens | Northeast (Lincoln) | Dawson Hawkins | 39—34 |

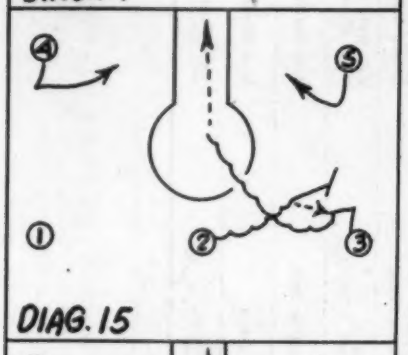
| | | | | | |
|---|---|---|---|---|---|
| **MISSOURI** | Beaumont (St. Louis) | Tom Stanton | St. James | Robert C. Brener | 44—35 |
| **MONTANA** | A—Anaconda<br>B—Hardin | Mike O'Leary<br>Hugh Cottom | Billings<br>Hamilton | Roy Morin<br>Lawrence Potter | 47—45<br>51—48 |
| **NEBRASKA** | A—Grand Island<br>B—Seward<br>C—Wakefield<br>D—Weston | Aubrey Givens<br>Tom McLaughlin<br>Garold Ellyson<br>R. C. Stalcup | Northeast (Lincoln)<br>Ord<br>Waverly<br>Hildreth | Dawson Hawkins<br>Alex Cochrane<br>Ralph Bowmaster<br>Joe Sukovaty | 50—24<br>32—42<br>35—31<br>27—24 |
| **NEVADA** | A—Elko<br>B—Carlin | Willard Weaver<br>Perry Patterson | White Pine<br>Tonopah | Angelo Collis<br>William Meeks | 41—28<br>45—40 |
| **NEW HAMPSHIRE** | A—Concord<br>B—Pinkerton Acad.<br>C—West Lebanon | Richard Martin<br>Gordon McKernan<br>Roland Boucher | Berlin<br>Exeter<br>Lincoln | Dudley Purbeck<br>Richard Eustis<br>Frank Leidtker | 31—24<br>47—36<br>25—23 |
| **NEW JERSEY** | IV—Orange<br>III—Cliffside Park<br>II—Highland Park<br>I—Atlantic Highlands | Carl Sailer<br>Francis Milner<br>Austin Lepine<br>Howard McKee | Atlantic City<br>Edison (Elisabeth)<br>Weehawken<br>Verona | George Sweeney<br>Mike Ziobro<br>Les Purvere<br>Nelson Smith | 47—29<br>49—47<br>57—39<br>36—30 |
| **NEW MEXICO** | Portales | Aud Smith | Navajo Mission | Willard P. Bass | 33—31 |
| **NORTH CAROLINA** | AA—High Point<br>A—Hendersonville<br>B—Bethel | A. J. Simeon<br>Ted Carter<br>W. C. Latham | Wilson<br>Kinston<br>Stanley | Hank Madden<br>Bill Fay<br>W. B. Royster | 44—41<br>48—44<br>43—38 |
| **NORTH DAKOTA** | A—Williston<br>B—Minot College H. S.<br>C—Carpio | Ed Roy<br>Leon Lende<br>E. Johnson | Bismarck<br>Rugby<br>Alexander | R. Murdock<br>Melvin Johnson<br>Alf Flaten | 49—40<br>51—28<br>43—34 |
| **OKLAHOMA** | A—Classen (Okla. City)<br>B—Cordell<br>C—Tushka | Carroll Smelser<br>Eldon Payne<br>Ross Smith | Central (Tulsa)<br>Pawnee<br>Ron (Hollis) | Grady Skillern<br>O. M. Clearly<br>Virgil Francis | 32—31<br>30—26<br>26—24 |
| **SOUTH CAROLINA** | A—No. Charleston<br>B—Bennettsville<br>C—Summerton | Bob Clark<br>Mike Caskey<br>H. B. Betchman | Greer<br>West Gantt<br>Silverstreet | W. C. Pinson<br>T. B. Atkinson<br>J. C. Long | 45—25<br>42—33<br>25—21 |
| **SOUTH DAKOTA** | A—Mitchell<br>B—Webster | A. A. Quintal<br>George Houk | Sturgis<br>Eureka | B. W. Woodle<br>Louis Papendick | 35—30<br>44—40 |
| **TENNESSEE** | West End (Nashville) | Emmett Strickland | Tennessee (Bristol) | G. B. Pierce | 61—39 |
| **TEXAS** | AA—Crozier Tech. (Dallas)<br>A—Mt. Vernon<br>B—Maydelle | James Adkisson<br>Catfish Smith<br>J. G. Hobson | Lufkin<br>E. Mountain (Gilmer)<br>Johnston City | W. E. Curry<br>E. J. Woodruff<br>W. M. Ross | 29—28<br>44—33<br>35—31 |
| **UTAH** | A—Weber<br>B—Brigham Young | Floyd Slater<br>Dave Crowton | East (Salt Lake City)<br>Beaver | Harold A. Johnson<br>Mel Heslington | 36—34<br>33—27 |
| **VIRGINIA** | I—John Marshall (Richmond)<br>II—Norton<br>III—Quantico Post | Jim Hickey<br>Sam Lawson<br>Lou Biskup | Newport News<br>Glen Allen<br>Ervington (Norw) | Julio Conn<br>Louis Miller<br>Sidney Stanley | 45—35<br>49—30<br>36—34 |
| **WASHINGTON** | A—North Central (Spokane)<br>B—Bainbridge | Robert Brumbley<br>Tom Puzki | Bremerton<br>Kalama | Ken Wills<br>Virgil Simmons | 42—37<br>43—40 |
| **WEST VIRGINIA** | Princeton | Quentin Barnette | Huntington East | Aldo Puletti | 49—35 |
| **WISCONSIN** | Wauwatosa | Bill Walters | Eau Claire | John Novak | 41—35 |
| **WYOMING** | A—Cheyenne<br>B—Byron | C. H. Blanchard<br>Willard A. Mower | Lovell<br>Hanna | Chas Christiansen<br>Ted Rogers | 54—38<br>47—41 |

State Tournaments are not held in California, Delaware, Maryland, Massachusetts, and New York.

Reports were not received from Mississippi, Ohio, Oregon, Pennsylvania, Rhode Island, and Vermont at press time.



DIAG. 14



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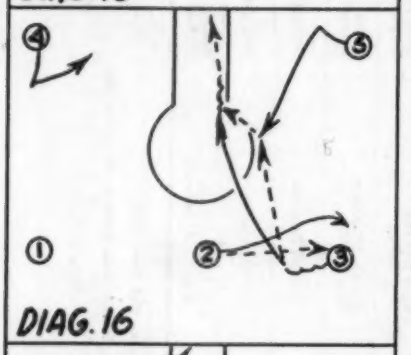

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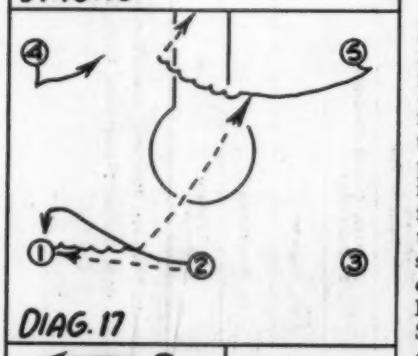

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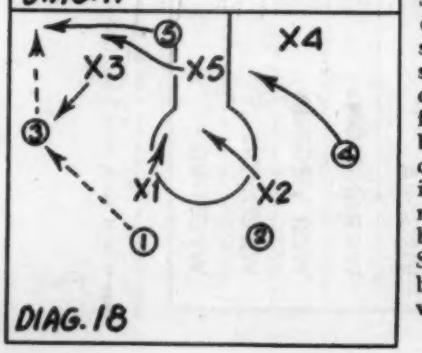


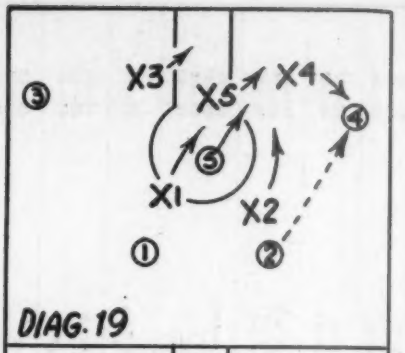
DIAG. 18

frequently. In Diagram 13, 02 flips a pass into center 05 off the weave. Two of the weaving players then scissor around the post, or the post player uses his own tricks.

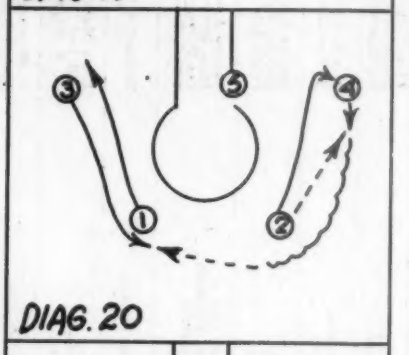
In the final series, U.C.L.A. changed their set offense to a three out, two in set-up as shown in Diagram 14. They worked off this for the entire game, always setting it up deliberately, never fast-breaking. Dave Minor, classy negro guard, handled the quarterback spot at 02 and controlled the ball at that spot very deliberately. The U.C.L.A. strategy seemed to be to slow the game to an irritatingly slow tempo a la Hank Iba. By keeping the center of the offensive court wide open, they could drive in unmolested whenever a California player over-pressed trying to steal the ball. Minor, a clever dribbler, was able to drive into the keyhole for one-handers n several occasions. U.C.L.A. strategy almost worked. They held a four-point lead in a low scoring game with three minutes to go. Only a last desperate spree gave California a close win. The U.C.L.A. plays off this pattern featured a slow dribbling style weave by the three outer players. Their two largest players took the 04 and 05 spots. If 01, 02, or 03 could not free themselves by their own weave, they passed into 04 or 05 who broke to meet the pass. Diagram 15 shows the dribbling screen to free 03. U.C.L.A. counted a couple times off the post play in Diag. 16. 04 and 05 freed themselves several times for cross-over shots as shown in Diag. 17.

Stanford University, after a great practice season, ran into unbelievably bad luck. Not once in their first eight league games were all of their regulars in good shape. In fact they played four or five league games with only two or three first stringers able to play most of the game. Sickness and injuries ruined a potential conference favorite. With a tall but not too fast team and green reserves, Coach Dean stuck with a 2-3 zone all season except late in the game when behind. His zone, built around center Steve Stevenson, gave all of the teams a lot of trouble. The zone worked as shown in Diagrams 18 and 19. Stevenson covered both the keyhole and corners, depending on how the offense set up and the location of the ball. As shown in the diagrams, the defensive center covered the corner, if the offense overloaded in that manner. If the offense didn't overload, but instead left a man at the post, Stanford's center stayed near the basket. Stevenson played his position very well. Despite a fairly good de-

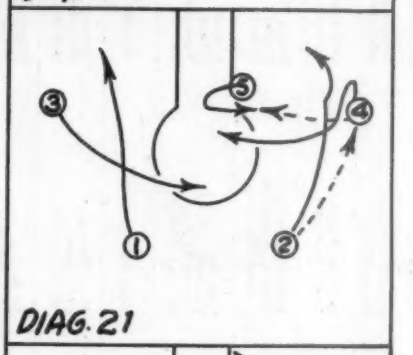
*(continued on page 66)*



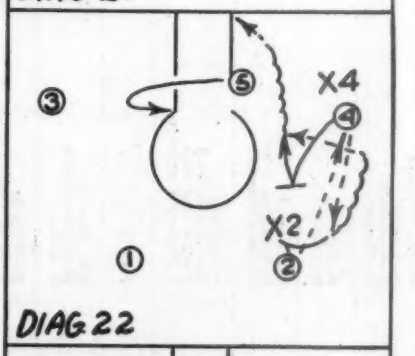
DIAG. 19



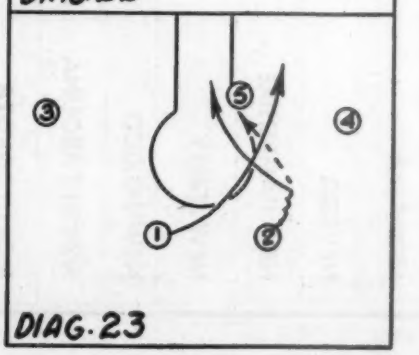
DIAG. 20



DIAG. 21



DIAG. 22



DIAG. 23

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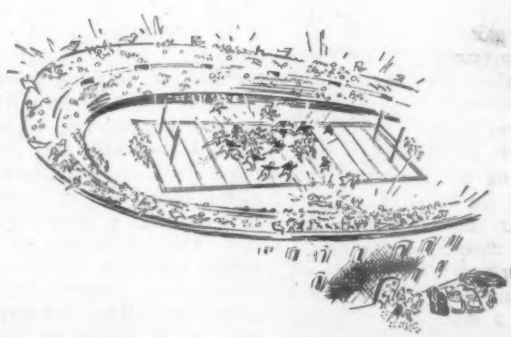

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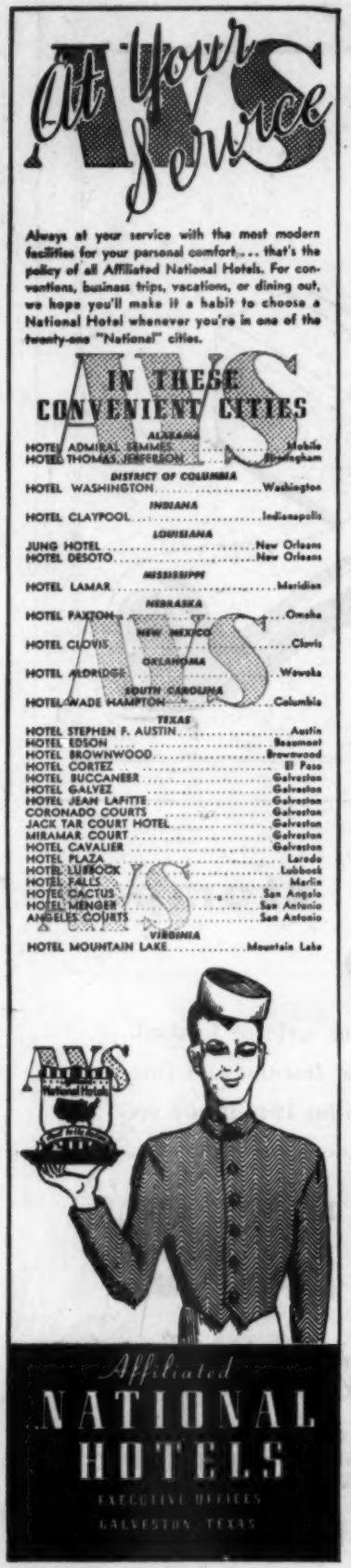
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# Split T or Single Wing?

*(continued from page 26)*

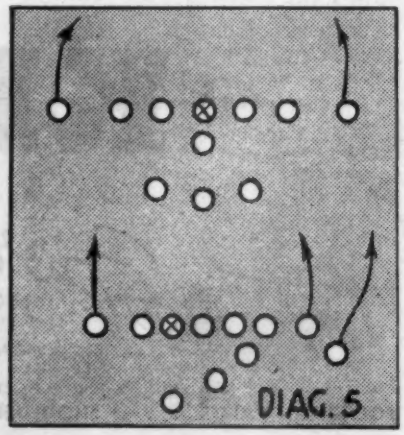
straight ahead in only two or three holes and must consume time hitting the point of attack if it is very far removed from the center of the formation.

Another advantage of the "T" is that the opponents must present some sort of a balanced alignment defensively. Since the "T" offense can go either way with equal facility, the defense must then be spaced equally across the line. We have found that teams normally will use standard alignments against the "T". Against the single wing it is much easier for the defense to use unusual and unorthodox defenses, gambling or playing the personnel of the offensive team because of the time element involved in the single wing's hitting wide, as mentioned in the paragraph above. On most plays from the "T" formation only one-half of the defensive team need be blocked, whereas in the single wing almost all defensive men must be handled. Again this makes it easier to adjust to varying defenses from the "T" inasmuch as only three or four blockers are involved, rather than eight or nine which is the case with the single-wing play.

The final advantage of the "T" formation over the single wing is simplicity of execution. There are no complicated blocks from the standpoint of technique nor is a variety of blocks used. Most of the offensive men need only be able to execute one thing well: all linemen must be able to fire straight ahead and do an adequate job of one-on-one blocking. There are, however, no double-team blocks, no traps, and no pull-outs to learn which, of course, are necessary for the single-wing attack and which take time and effort on the part of the coaches as well as the players. In the backfield, the "T" formation halfbacks need only speed and ability to carry the ball while in the single wing they must be able to do this and in addition block ends, double-team tackles and work down field on the secondary.

*"Bud" Wilkinson began his football success story playing for Bernie Bierman's winning Gophers in 1934, '35, and '36. In 1937 he quarterbacked the college All-Stars to their first win and played three-fourths of the game. During the war he assisted Don Faurot in coaching the Iowa Pre-Flight Seahawks and also saw action overseas. His first year at Oklahoma saw the Sooners win 7, lose 2 and tie 1 and compile the best rushing average in the school's modern history.*

**Diagram 5. In the T the splits in the line make it more difficult to protect the passer. Only two receivers can get out quickly. In the single wing the solid line aids pass protection and three receivers can get out quickly.**




The split-line "T" attack, however, has some serious disadvantages which in turn make it a less desirable type of offense than the single wing.

First, it is a gambling type of offense in which it is almost impossible to control the ball well and to avoid three or four fumbles during the course of any game. When the ball-handling and faking are executed at the line of scrimmage, they must be done smoothly and accurately, and when a bobble occurs, both teams are in an equally good position to recover the ball. However, in single-wing plays, fumbles which occur in the faking take place behind the line of scrimmage and the offensive men have time to recover the ball before the defense can penetrate to the point of the fumble. Thus, while the deception of the "T" at the line of scrimmage is an advantage in its effect on the defense, it works at a disadvantage if the ball is bobbled or a mistake is made in the ball- handling. With a normal single-wing attack you can control the ball and use only safe plays deep in your own territory to avoid fumbling and giving the defensive team a break and field position. There is no way of insuring this with a split-line "T" as every play on offense is a gamble, from the standpoint of ball-handling, and may result in a fumble if not properly executed. Thus, the "T" team usually

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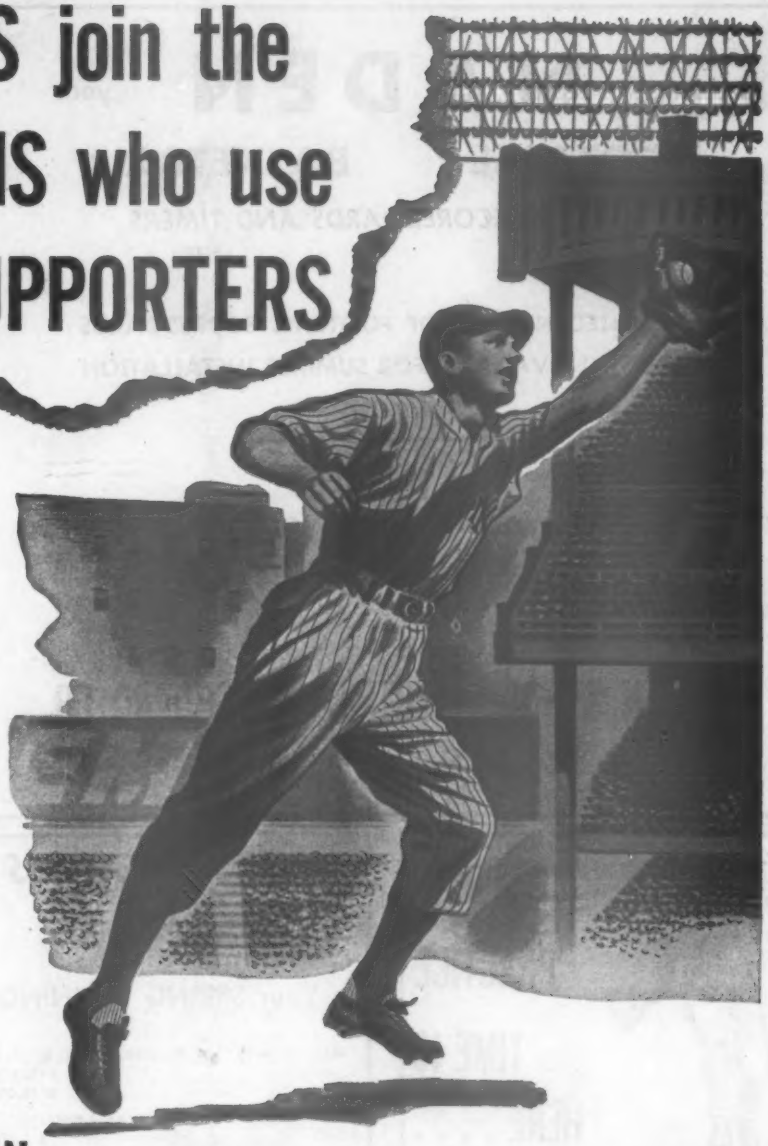

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pays a far greater penalty for its own errors than does a single-wing club.

The "T" formation is also handicapped from the standpoint of forward pass offense. You can only get two receivers downfield quickly unless a man-in-motion or a flanker is employed, and when using the flanker or a man-in-motion, you destroy some of the running effectiveness of the "T" itself by taking the extra back out of the normal alignment. The single wing, on the other hand, can get three men out quickly which puts far more pressure on the pass defense. In addition, the splits in the offensive line of the "T" make it more difficult to protect the passer; the defensive men have more room to maneuver in rushing than is possible with the solid line presented by a normal single wing.

Finally, the "T" formation has no ability to wear down the opposition and defeat them physically as does the single wing. The "T" offense is based on speed, deception, and timing with constant pressure placed on the defense to avoid break-away plays. On the other hand, a single-wing team with slightly superior personnel can usually dominate the ball, wear down the opposition physically, and win through superior manpower, provided it has adequate personnel.

To summarize, there is much that may be said in favor of either formation. The split-line "T" places its main emphasis on quick hitting over the entire area of the line of scrimmage, but in so doing sacrifices some of its forward pass threat. The single wing, on the other hand, has a fine pass threat at all times, involves no gambling in ball-handling and faking, and may wear down the opposition by the use of superior manpower.

## Championship Form In the Shot

*(continued from page 11)*

four years of work to plant his left foot anywhere but in the far left corner of the circle, and consequently he faced the front of the circle even on his best puts and it was never felt that he reached maximum performance.

It may seem that we place too much emphasis on the placement of the left foot, but it seems to cover a multitude of problems. Besides the above mentioned difficulties, the left foot placed in the "bucket" permits the right hip to come through too soon and an open stance is the result. One of the most important services of the

left leg, however, is its use as a fulcrum that the powerful right leg and body momentum work against. For just an instant at the beginning of the actual put, the weight and power of the body are driven against the left leg which serves as a base and power unit from which to give the final fast wrist flick to the shot (picture 5). It is possible that the good position of Fonville's left leg partially explains what many observers credit to his "explosive" power on the end of his put. At any rate, best puts show a definite high rise on the toes of the left foot (picture 6).

We left the discussion of Fonville as he was about to begin the actual put. It begins as a lifting rather than a twisting action of the entire right side of the body. Even the chest and chin lift into the putting action as the left leg straightens for an instant before the shot leaves the fingers. In short, all parts of the body come up into the shot, and as the right shoulder comes up, the final vicious drive of the wrist and fingers completes the action.

The final stage of the put is the reverse, and it is merely the last stage of the "follow through." The put has been so fast and the follow through so complete that he must reverse to stay in the circle. To think of the reverse as part of the driving action is to invite a hurrying of the right hip and thus a definite loss of driving power that is gained only by contact of the right foot with the ground.

In conclusion, it is realized that many important phases of Fonville's shot putting have been ignored due to the brevity of the article. It should be mentioned, however, that Fonville's ability to relax in all phases of his putting is of great importance. It is doubtful if shot putters can work too hard or too long and it is generally felt that there is no danger of becoming muscle bound or even slowing down muscle reaction as long as the emphasis is on speed rather than mere power. The ability to be quick, intense, and at the same time relaxed, must be emphasized.

*J. Kenneth Doherty starred in track at City College of Detroit and in 1928 won the national decathlon tryouts. He finished third in the Amsterdam Olympics with 7,600 points. In 1929 he set a new national AAU decathlon record. Now in his ninth year as track coach at Michigan, his squads have participated in seventeen Big Nine meets and have captured eight of these major indoor and outdoor titles.*

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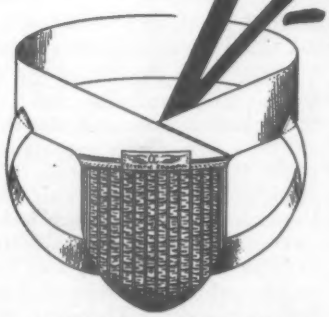

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## Football Motion Picture Photography

*(continued from page 14)*

when on the opposite side of the field the 2-inch lens might be correct. When the play is at one of the far corners of the field the 2½-inch lens might be correct. This all depends upon the distance of the camera from the field. In cases where the camera position is more remote the 2-inch, 2½-inch, or 4-inch lenses might be the correct combination. In the majority of cases this group of lenses will prove satisfactory. The two lenses used most often can be left on the turret.

### Choice of Film

The selection of the type of film to use depends upon several factors. Nearly everyone agrees that color film is the first choice, chiefly because it produces a naturalness that is extremely pleasing. Also, it shows distinctly the differences in color of the players' shirts, uniforms, and numbers, and makes it easy to differentiate between the two teams during play. Black-and-white films record all colors in monochrome and for this reason it is often difficult to tell the players on one team from players on the other.

There are several advantages, however, in using black-and-white film at the present time:

1. High speed. Less light is required; therefore, it can be used for filming night football games.

2. More rapid processing service.

While in some parts of the United States the sunlight holds good throughout a game and also throughout a season, there are many areas where the game may start in bright sunlight but end in cloudy overcast. Under such circumstances it is difficult and usually undesirable to start a game on color film and have to switch to black-and-white for the last half or quarter. Therefore, it is usually more desirable to film the entire game on black-and-white material.

The next important consideration is speed of processing. It has been the practice of film manufacturers for several years, to open their processing laboratories for Saturday night processing of 16mm black-and-white films during the football season. All coaches like to see the movies of their games on the following Monday if possible. In most


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cases, black-and-white films mailed to the nearest processing laboratory, clearly marked "Football Films—Rush", and mailed by the fastest possible means, will be returned to the sender for projection on Monday.

Color films mailed in the same manner will be returned a day later for projection on Tuesday.

It is possible that in a few year's time, when a lot of color film is used for this purpose, the laboratories will be able to give the same Saturday-Sunday service on color film that they now give on black-and-white film.

Therefore, at the present time, due to high film speed and more rapid processing service, black-and-white film is more generally used than color material. For filming in good light conditions on black-and-white film, the Cine-Kodak Super-X Panchromatic film or a similar film is first choice. In inferior light conditions or when making pictures at slow motion camera speed of 32 or 64 frames per second, the faster Cine-Kodak Super-XX Panchromatic or a similar material is recommended.

For color work, Cine-Kodak Kodachrone film, Daylight Type or a similar film will produce excellent results under all conditions of either hazy sun or bright sunlight. While good results can be obtained in cloudy-bright light, the color quality obtained on a dark overcast day may not always be "top-notch", but in many cases will be acceptable.

Color films can and should be used whenever light conditions permit and when the films can be left for one day longer at the processing laboratory.

### Night Filming

During the past two or three years there has been a considerable increase in the number of football games played at night under artificial light. (See strip at beginning of article). This is particularly true of high school games. It is only natural for coaches to want pictures of such games for study as well as of games played in daylight. While it is possible to make acceptable motion pictures under such circumstances, many cases of failure have been reported.

First, it must be borne in mind that the baseball parks which are illuminated for night baseball are usually not well suited for football. Then, too, the intensity of illumination is adjusted in most parks for visual observation of the game and not for photographic purposes. The human eye has a fairly wide range of adaptation to low levels of illumination. The camera and film do not possess this ability to accomodate.

There is a definite threshold of illumination required for the fastest Super-XX type of panchromatic film, and it is necessary to use a wide aperture lens, such as the two-inch f/1.6, in order to obtain satisfactory exposures.

At 16 frames per second at f/1.6, 45 foot-candles of illumination are required; at 24 frames per second, 70 foot-candles are needed.

With the f/1.9 lens, 16 frames per second, 60 foot-candles are necessary; and at 24 frames per second, 90 foot-candles. To determine the exposure, a foot-candle meter, such as the ones manufactured by the General Electric Company and the Norwood Exposure Meter Company, should be employed. Most standard exposure meters can be recalibrated to read incident light rather than reflected light.

Since most playing fields illuminated for night games are lighted with 40 to 80 foot-candles, such photography is more or less limited to the use of the f/1.6 and f/1.9 lenses.

The reasons for failure in making such pictures are many. Since such


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exposures are on the "ragged edge," there is practically no leeway for any drop in the illumination level.

In Rochester, New York, the baseball stadium was illuminated for night baseball games. Measurements were made of the incident light falling on the playing field. When the bulbs were new, the illumination around home plate and the pitcher's box was approximately 80 foot-candles. Around second base and short-stop the illumination fell off to 20 foot-candles, or 1/4 the light intensity at home plate. This means that if a gridiron were laid out on the baseball diamond, the illumination around the home plate area would be enough for pictures at f/1.6 at 24 frames per second, but if the play shifted to the second base area the pictures would be two full stop under-exposed.

This lack of uniformity of light is not visible to the human eye, which can readily adjust to accommodate for such differences.

After making the first test with new lamps, subsequent tests were made at intervals. Three weeks later, tests were made on the same field positions and with the same meter indicated a considerable drop of illumination—around home plate 60 foot-candles; around second base 15 foot-candles. In September of the same year, or two months later, readings were again made and around home-plate were 45 foot-candles and around second base were 10-12 foot-candles.

Investigation showed that blackening of the lamps with age and with dust from moths and other insects accounted for most of this drop in illumination. A drop in line voltage would also cause a drop in light output. This is often a serious factor in some cities in certain parts of the country.

The figures given earlier for foot-candle requirements represent the *minimum* that can be employed. If a field were to be especially illuminated for motion picture photography, 140 to 150 foot-candles should be considered as the minimum. This would permit stopping down the camera lens to about f/2.7 and would increase the depth-of-field so that there would be greater over-all sharpness in the finished movie, and players numbers, etc., would be more legible.

It is obvious from these few factors that to do a really first-class job of filming night football games the playing field should be especially illuminated for motion picture work. This means that the lights should be placed properly so as to provide uniformity as well as constant intensity.

At least one school, the East Lansing High School in East Lansing, Michigan, has illuminated its playing field to the proper level for good motion pictures. Their films are so well exposed they actually look as if they were made in daylight.

### Projection

To the football coach there are three important phases to motion picture photography:

1. Making the pictures.
2. Rapid processing.
3. Projection for study.

The projection of films after they are returned for processing is an important factor. Most coaches prefer to have all of the films made of one game assembled on one or two large reels. Since the number of rolls exposed in a single game may vary from twelve 100-foot rolls to twenty 100-foot rolls, it means that a projector capable of holding from 600 to 200-foot reels must be employed.

Processing laboratories provide a special service free of charge with the processing of such films. When there are more than 300 feet and the film boxes are numbered in the order they are taken, the laboratory will splice the films together and assemble them on 400-foot reels in the proper order. Then when they are received by the school they are ready to project.

Football films are not projected just once or twice; most coaches run and re-run a certain play and study the action of each player. There are projectors available with push-button controls which quickly reverse the projector so that it can be switched to run backward or forward. By the use of such a projector the coach can re-run any scene as often as he wishes.

Since football films are studied by a small group usually in a conference room or office, a small picture size is usually satisfactory. Often a white desk blotter or other suitable material approximately 18 x 24 inches can be used. When films are projected to larger groups the standard projection screen should be employed under recommended conditions.

Many coaches assemble the first half of a game on one reel and the second half on another. Two projectors are employed, and if desirable one group can study the first half of the game in one room while another group studies the second half in another room. Later they switch films, and later view them all together. This results in a considerable saving of time.

In summarizing some of the salient points raised in this discussion, it might be said that the making of successful football motion pictures requires good co-operation between the photographer and the coach. Since the coach is primarily interested in films for purposes of study of plays, the photographer should be fully aware of such requirements and adjust his shooting technique until the coach is satisfied.

There is still a great deal of opportunity for improvements in football motion pictures. Many of the photographers and coaches who have been making such pictures for years have ideas and improved filming techniques which will be helpful to other coaches and football photographers who have had less experience. It is the purpose of this symposium to bring together the persons making films and those who intend to make them, and to try to help those who have had difficulty in obtaining results they require.

I personally hope that each year from now on we may have a motion picture symposium for the open discussion of our problems so that we may all benefit and in the end improve the quality and usefulness of football motion pictures.

## A New Use For Motion Pictures

*(continued from page 13)*

Let's say that on this play he is an off-side end, runs downfield and immediately goes out of the picture. He has to be given a grade of X since his action is ungradable.

After we have graded that end we look at the tackle, running the play through two or three more times. Sometimes it is immediately apparent what the player's grade is, and again, it may be very difficult to make a decision. The guard and the other positions are graded in turn, each with the same study.

If a man receives a penalty for holding we give an O with an H in the center of it. Off-side rates an O or Os. Many times short-side men when they are going down the field will take a rest. The grade is just plain OL. "L" is for loaf—that's all there is to it. We go through the whole film this way treating each play the same. It takes eight or nine hours to do the thing all the way through properly but we think it is well worth the time.

As we go through we will get 4, 2, 5, 0, etc. across the page. As plays come up, 44 may show up again and again, as will other plays. If, as we go through this, we find that the left end in one instance gets a zero on the play, another time a 1, then a 2, then another O, and so on, we know there is something wrong. Of course, the first thing we will consider is that perhaps the fellow just isn't a good enough football player. Perhaps, however, we know from previous grades that he is the best we have. Then we consider the design of the play and decide whether we are asking too much of the man. We check back with fellows who have had the same or similar job to do and if they have not done it well we can generally trace the difficulty right to the coach himself. He hasn't spent enough time on it and it is his fault.

We get all the grades down and the chart stays in the movie room all the time, so the players can see it. Of course their own coaches go over all of the bad grades with them and make notations, and the boys are just as anxious to see improvement as we are.

Naturally, if a fellow gets many O grades we know he is not a very good ball player. However, we try in every

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way not to belittle a boy because his grading on the chart is low. We are more ready to say that *we* did not do a proper job of teaching rather than to belittle *him* and make him feel badly because it shows him up in front of everybody. This is a very good way of making these short-side men, who occasionally have incidental jobs to do, get in there and do them well.

I want to make it clear how the grades are determined. If a fellow has a hard job to do and does it very well he deserves 5. If he has a vital job to do and does it badly and ruins the play he gets O. There is no question about that. But if he has an incidental job to do, such as checking back someone on the short side of the line and doesn't do it but the play still goes through, then the poorest grade he can get out of it is about 2. If he has a job on the short side of the line and the defensive man plays right into his hands, he doesn't deserve 5 for it, — the best he could hope for would be 4.

Of course you run into difficulties with, say, a T-formation quarterback who takes the ball and hands it off in a perfectly routine way. You just don't know whether to give him 5 or not. It probably was not worth that much. As a rule, routine, clean handling of the ball by the quarterback rates a 4. We feel a really good job is about 80 per cent or the equivalent of about 4.

The grades serve several purposes: they show the boys how they are coming along and allow us to check back on the players and the designs of the plays. Most often we find that what goes wrong is the coach's fault. We have asked the fellow to do too difficult a job, or we haven't drilled on it enough. That is what we say about ourselves, anyway. Many times we give the boy an O and put a "C" in it, denoting criticism of ourselves for making the mistake.

We feel that the grades in themselves are vitally important, but not as important as the fact that the team has seen the film together and has studied each one of the players in turn. I know what Dick Jenkins did from having looked at that picture three or four times. A lot of people will sit on the bench and make a decision about a fellow in a game but I swear I don't know anything about it until we get a chance to work on the movie.

The point I am trying to make is that we have done these boys the honor of trying to analyze what they did by going over the picture enough so that we can make an actual decision on how well they carried out their assignment on each play.

Sometimes we will have almost perfect plays — 5-5-5 right down — and they won't go very well; but we find that, on the average, the plays that turn up with quite a few good grades on them produce good returns in yardage.

No doubt there will be technical points in the filming over which you will disagree with your photographers. The ideal situation of course will be when they can concentrate on the immediate play and when it goes on down the field zoom it out.

## Filming Night Football

*(continued from page 13)*

2. It gave the players an opportunity to participate in a "Varsity game" before the regular season started.

3. It gave the coaching staff an opportunity to see the boys play "under fire" and to see how far the squad had progressed.

4. Lastly, it made enough money to finance the football motion picture project.

Arrangements were made with a commercial photographer to take the motion pictures. Although his fee seemed quite high, it was felt justifiable because it would mean better pictures. As it turned out, the pictures were excellent. After the season was completed, the pictures were sent to the Eastman Kodak Company for comments, recommendations, and suggestions; they wrote back stating that they were one of the best night football pictures they had ever seen.

The following information might be useful to those interested in sponsoring a football motion picture project.

Inasmuch as the games were played at night, it was necessary to have an experienced photographer take the pictures. The East Lansing football field has ten light poles, sixty feet in height which are located twenty feet from the playing sidelines. Each pole has eight 1500-watt lamps, which would result in having a total of 12,000 watts on each pole and a total of 120,000 for the field. The type of lamp on each pole is known as the enclosed type, 4201-p which is manufactured by the Revere Electric Manufacturing Company of Chicago, Illinois. The light poles are located approximately 100 feet from the center of the playing field.

The light intensity in foot candles

for the field was as follows:

1. Center of field 8 foot candles.
2. Halfway from center of field to sideline, 11-12 foot candles.
3. Sidelines, 10-15 foot candles.
4. Average lighting for whole field, 12 foot candles.

The pictures were taken from a stand twenty feet high, located on the 50-yard line approximately fifteen feet from the sidelines. The photographer mentioned that better pictures would have been taken if the stand had been higher and farther away from the playing field.

A Cine-Kodak Special camera with two inch coated lens at F/1.6 was used in taking the pictures. The photographer tried setting the aperture at F/1.9 and found that the distance was too far and the film under-exposed. The pictures were taken at sixteen frames per second with Super XX film being used. The exposure was 1/30 of a second.

The games were played on Friday night and the pictures were received on the following Tuesday from the Eastman Kodak Company and shown to the squad.

The pictures were also shown to the high school students during the general assembly period on Friday morning and they provided interest and enjoyment for the student body. The head coach ran the projector and reversed the interesting points of the game, such as scoring plays, key blocks and tackles, pass defense, etc.

It is not necessary to go into the values of football motion pictures as all coaches know what they can do for the squad. It is surprising what the players reaction is when he knows that the game is being photographed. After seeing the pictures, they realize how important it is to give their maximum effort at all times. Arrangements were made for the players to see the pictures during their study periods in the coaches' office so that they could run the pictures over and over to check their mistakes.

To arouse interest among the younger boys, the pictures were shown to junior high and grade school boys during one of their physical education periods.

From the standpoint of public relations, the football motion pictures proved to be very worthwhile. The parents and other townspeople were given an opportunity to see the "movies" at the meetings of the Parent - Teachers Association and Mother's and Dad's club meetings. The Dads of the Varsity football boys were given a special showing of all the games during the annual Varsity Dad's bohemian supper. All of the meetings enable members of the coaching staff to get better acquainted with the parents and to knit a closer and more affable relationship.

An interesting point to bring out is that only 300 feet of film was used for each game. Because high school games are shorter in playing time than college games and because high school teams call fewer plays than college teams, less film is necessary for the pictures.

Taking football motion pictures at East Lansing will be an annual affair because of the unusual success of last season's venture. The result of motion pictures is an added interest in the game for the player, the spectator, and the coach. The players improve their game very much because they have an opportunity to see where and how they made their mistakes.

The purpose of this article is to show other coaches and athletic administrators what can be done in the way of sponsoring worthwhile projects for improvement in their program at no cost to the school.


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# Break That Slump

*(continued from page 28)*

lar elasticity, reaction time, eyesight, and leg drive and power. All of these changes affect the batting process in one way or another.

An increase in weight does not necessarily mean an increase in strength. If the weight is localized or over-balanced in one section of the body it will handicap the speed of body movements in that section.

Muscular elasticity often will cause a slower reaction in bringing the bat forward to meet the pitch. Young players, as they get stronger, may find that they can move the bat around much faster and may then want to hold the bat longer, switch to the free swing, or perhaps use a heavier bat.

Players who put on weight around the hips find difficulty in swinging their bat far enough forward and following-through properly because the roll in their hips on the swing lags behind too much. There is then little drive behind the batted ball and a tendency to hit weakly to the opposite field. Players who put on considerable weight around the chest and shoulders often find that they cannot swing the bat around fast enough because of the additional upper-body weight.

Players intelligent enough to understand and see these changes and problems as they occur are better able to solve or modify them rather than prolong them. Smart players will change their grip on the bat or use a lighter bat to offset these physical handicaps when they occur. As these physical handicaps are overcome, the batter should make adjustments to meet these changes in his body characteristics. Choking-up on the bat and shortening the swing under similar conditions have often offset or delayed a batting slump.

It is a well known fact that many professional ball players adjust the weight of the bat to their changing physical strength during the season. The purpose behind this move is again, to offset or delay the batting slump. When a player feels strong in the early part of the season after a winter of rest, he may use a 35 or 36-ounce bat, but by mid-season or later he will find this same bat too heavy because he is becoming physically tired.

The adjustment that each player should make depends upon his individual needs, his knowledge of batting, his batting style, and his intelligent and calm approach to meeting his problems at the plate.

"Just keep on swinging and swing your way out of your slump," say some players. The writer feels that this saying does not refer to the batting slump but rather to a situation where a player is hitting the ball fairly well but is not getting base hits. In this situation the player may be hitting line drives or hard smashes right at the fielders. This is not a slump. Under these circumstances the batter must not lose courage but should stand up at the plate and keep swinging since probably nothing is wrong in his hitting process. If there was he would not be hitting the ball well at all. When a player is in a bona fide slump it is foolish for him to try to swing his way out because he then roots these bad practices more deeply into his batting style. The result is usually a prolonged batting slump.

A few players prefer to bunt as often as possible in attempting to break their batting slump. In this way they are more apt to follow the ball longer. The degree of muscular co-ordination and muscular effort is minimized on the bunt. This leads to less pressure on the batter and more opportunity for relaxation. Bunting exercises, morever, are easier to perform since they require less precision of timing than batting, while still keeping the batting eye in focus.

The sacrifice bunt, the bunt for the base hit, and pepper or high-low exercises have been used successfully during practice sessions to break a batting slump. Players who, while in a slump, bunt more during actual game play have found that they can break their slump faster.

Benching a player who is in a slump is an acceptable practice providing the player does not interpret this act as an indication of hopeless failure. A complete cessation from baseball for a few days is sometimes advisable. In years gone by some professional baseball managers have told players who were in a batting slump to stay away from the ball park. In this way the player gave his tired muscles a rest and his confidence was restored. When replacements are available or when games are held a few days apart this practice has been found a desirable one.

Another good method with which to cure a slump is by only punching or poking at the ball. This is done

by taking a short easy swing, one that just tries to meet the ball and not to kill it. By doing this the batter will cut down on all body movements and muscular activities involved in the normal batting process and also reduce the possibility of batting errors. By employing this style the batter will also have a split-second longer to look at the ball and will have better judgment in swinging at it.

Probably one of the most overlooked and least used techniques in attempting to break a batting slump is that of relaxing more completely while at the plate. It is generally agreed among good baseball men that great players have one characteristic in common: that of being able to relax when under pressure of game play. One of the difficulties encountered by players in a slump is that they tighten up. Some players describe this process as "trying too hard."

It is not impossible for a player to practice relaxation by thinking about it and by forcing himself to do it. There are few mannerisms that may help a batter in doing this. One is to take a deep breath just before taking the position in the batting box. Another is to slump the hips forward loosely after taking the position in the batters' box. Still another is to bend the knees slightly once or twice and then return to the natural stance immediately after taking the position in the batters' box. These items have been found helpful as relaxing exercises in preparation for batting.

Concentrating more on each pitch so as to watch it a split-second longer may help to snap a batting slump. Many slumps have been caused because the batter took his eyes off the ball a split-second too soon. In so doing he loses sight of the ball as he starts his swing and is unable to make last moment adjustments to meet a breaking ball. By watching the ball all the way to the plate the batter can follow any type of pitch better, and at least will not miss it entirely. When a batter misses the ball quite consistently for swinging strikes he usually finds himself in a slump. When this type of slump occurs it often is due to not watching the ball long enough on the pitch.

When in a slump, take a stance with your feet spread wide and do not stride at all in swinging at the ball. This is a particularly good way to break a batting slump when you feel that your stride is all out of kilter. By taking a spread-leg stance you eliminate the stride, cut down the swing, eliminate considerable body motion and jarring, and thus are able to follow the ball better. Many players have used this technique to break a slump and have had reasonable success with it. After a player has started to meet the ball solidly again by using this technique he can return to using his stride, and, in most cases, will continue to hit the ball solidly. When using the spread leg position at bat one must remember that the arms will have to work a little harder to make up for the lack of power and motion ordinarily furnished by the other parts of the body.

Many players change their batting style when in a slump. This is an acceptable practice providing the batter uses intelligent thought and knowledge as a basis for the change. Too many players change their batting style when in a slump, just because they think they ought to try something different. Aimless changes in the batting style will not produce a hit; purposeful changes often give results.

When in a slump study the opposing pitcher more carefully from the

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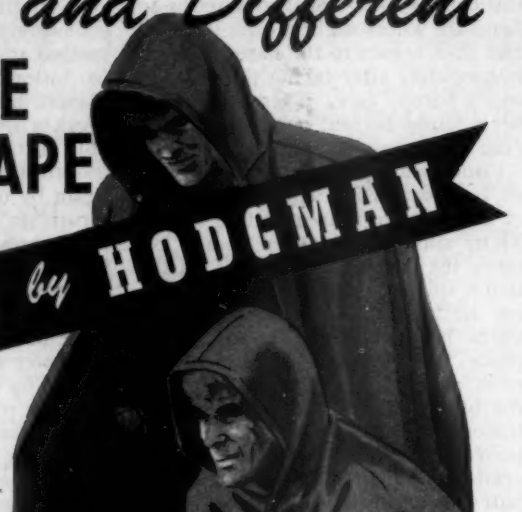

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bench. Try to increase your knowledge of his best pitch, his preferred pitch when ahead of the batter and when behind the batter in the ball-and-strike count, and his pitching pattern in general. In this way you can increase your percentage of anticipation or expectation of the pitch and increase the possibilities of hitting the ball well.

A final step in breaking the batting slump is continuous encouragement on the part of the coach. The latter should never show any signs of losing faith in a player's ability, regardless of how bad the player looks at the plate. When a player has to be removed from the line-up because of a slump, the coach should take an intelligent viewpoint on the matter, and discuss his opinions freely with the player, and attack the problem from the player's standpoint. The coach should talk to the player in a slump about temporarily benching him, always leaving his return to the line-up an open matter so as to create an incentive for the player to fight his way back.

Many professional ball players have been "made" by wise handling along these lines, and many others have been "broken" when the coach failed to understand the correct treatment needed.

## Discus Throwing

*(continued from page 30)*

front or forward rim. Another guide as to elevation is to have the maximum height at a distance of a hundred feet or more. A good height is thirty or thirty-five feet at the hundred-foot mark when you are competing. The proper sail is to have the discus revolving fast and smooth without fluttering in the elevation described.

With the finishing throw perfected you might then attempt to cross the circle with the revolution or turn. In starting the turn, I recommend that the right-handed thrower place his right foot near the rear center of the circle and his left just half the length of his shoe forward and to the left about twenty inches, facing at a right angle (to the right) of where he intends to throw. Then after a series of easy preliminary swings of the arm and waist he throws his right arm with the discus back as far as possible coiling at the waist and bending downward some at both knees. The left arm extended is carried on a straight line with the two shoulders. The discus is not turned over behind the thrower's back, but held parallel to the ground, kept in this position by the grip of the fingers

and the centrifugal force. When the discus is back as far as the waist and arm rotation will permit and the muscles are all somewhat coiled, the rotation to the left begins. The pivot is made on the ball of the left foot, then on the ball of the right. As a guide to see if you are placing your feet correctly in making the turn, draw or scratch a straight line from the position of center of the right foot (starting position) directly across the circle in the throwing direction. Then, in making your turn, both feet should step on the line in order that you get the most efficient throw. In making the turn, the first part of the revolution is done slowly, the discus well behind the body, the body bent slightly forward. When you start to pivot on the right foot and start the second revolution, your rotary speed is increased till the final whip and throw which is at the greatest velocity. After you have both feet well on the ground and after making the turn, your body still coiled, arm extended, together with the centrifugal force you have developed, you are ready for the greatest effort, the final throw. The motions now are as follows: rapid rotation of the trunk at the waist, shifting of the hips, lift and pull forward with the right arm, straightening of the body by the drive off the right leg which was still bent, then the final arm throw and wrist snap, the left arm being whipped backward hard as the right comes forward. The left arm may be carried bent at the elbow and extended in the final throw. The final throw starts when the discus is at the forward half of your turn; the discus always being parallel to the ground, though traveling forward and upward. It is very important to get the proper arm motion on the turns. The arms travel in a wave-like motion, the discus rising on the forward part of the turn and being lowest at the rear and start of the turn. The discus is released at shoulder height.

### *Co-ordination Necessary*

Co-ordination of arm and foot action is absolutely essential and the hardest part of discus throwing to perfect. The proper timing of your speed in the ring, when to throw, when to straighten up, and the elevation at which to throw—these are the most difficult tasks to master.

There has been considerable disagreement among coaches as to whether a discus thrower should reverse his feet or not in his final throw. Personally I could never see a great advantage in the reverse as with it the throw is often made with one foot off the ground and, in many cases, both feet. The final throw is where a man needs his most energy, hence he must have a good contact with the ground and drive from both feet. The reverse may be an advantage for a small man, but after studying the great throwers of


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the past, who were as a rule fairly large men, we find that Philbrook, Duncan, Mucks and the three great men from Finland, Taipale, Nicklander, and Nittymaa, did not use the reverse as taught today. In the finish I do recommend that the thrower follow through as far as possible, keeping his left foot in place and after his throw he can drag his right toe in an arc to the right. This last motion I used as it let me follow the throw a bit further and aided greatly in maintaining my balance and preventing fouling.

After studying the actions and styles of a great many throwers, I devised my own form, keeping in mind two points: the elimination of unnecessary actions, and the combination of only efficient and consistent actions. I feel that my form was consistent, especially my last year when in nine meets I averaged one hundred and fifty feet under various unfavorable weather conditions, my final meet netting me the world's record.

In the final analysis every individual cannot do well with the same form of throwing. Fit the form to the individual. If he does better using the reverse and jump at the end of his throw use that style, but my contention is to have him throw off of both feet, then whatever follow-through he uses is all right as long as he stays in the ring.

I have seen too many badly-coached prospects whose best throws were not legal because they needed a ten-foot circle. Minnesota had a great discus thrower named Fitch that used a hop in his turn and a jump at the finish, similar to Eric Krenz of Stanford. He was a big man, but his best throws were made after he finished college and eight years after he left high school.

Here are a few "don'ts" for discus throwers:

1. Don't try to spin until you learn to throw.
2. Don't whip your arm hard in the preliminary swings.
3. Don't start your turn fast, start slow and speed up.
4. Don't throw out the back of your hand—throw out over the forefinger.
5. Don't swing the discus close to the knees, keep it at arm's length parallel to the ground.
6. Don't tense up, stay relaxed until the final heave.
7. Don't throw hard every day.
8. Don't use a style of throwing that is not adaptable to all types of weather, and footing.
9. Don't use a style where you have to worry about fouling. In other words, one in which you have only one good throw out of ten.
10. Don't take up discus throwing unless you are going to be patient and be satisfied with a gradual improvement. Some days you just can't make that discus behave!

## Conditioning

*(continued from page 34)*

would say that most of the "exceptional" athletes, who can smoke and play eleven-man football with no visible ill effects, would be seriously handicapped in the much faster, distance-devouring six-man game.

Similarly, late hours, drinking, and other obvious injurious practices operate much as they do in other sports to limit the effectiveness of an athlete's performance. The only noticeable difference in six-man football is its drastic multiplication of the ill effects attendant upon such bad habits. It is virtually impossible for a six-man player, playing in a tough league, to stay on his team if he indulges in any of the practices which tend to lower his speed or endurance.

I believe the phase of practice that constitutes the best possible conditioning is scrimmage—frequent, hard scrimmage.

In the parent game, scrimmages are dangerous and often actually destructive. Massed interference, "piling on" tactics, and the "jack-knife" and "high-low" tackling techniques so often used, tend to break down the condition of a player who is exposed to very much of it. Thus, eleven-man coaches usually have but one heavy workout each week.

The six-man coach need not worry about any of these dangers. They are almost non-existent in the new game. Injuries occur, of course, and if they grow too frequent, scrimmage should be curtailed. But by and large, six-man football is not a game marred by injuries. Therefore, the coach should feel free to scrimmage as often as he deems necessary. Scrimmaging should not be done until at least a week of conditioning has been undergone by each player. After that preliminary phase, scrimmage can be held as frequently as thought necessary by the coach.

Finally, as coaches let us remember that conditioning is the only really important thing about any game. Scoring plays are quickly forgotten after the player leaves school—coaching techniques are of purely academic interest to the average graduate—but condition, physical and mental, lingers on and casts its afterglow over the lives of the athletes who have gone out to carve their way in the world.

It is this goal of "mens sano in corpore sano" that we coaches must strive to attain. It is as conditioners that we will be remembered by the men whom we have taught.

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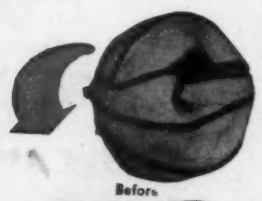

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## Basketball

*(continued from page 48)*

fensive record, the injury-riddled Indians lacked the stamina to win their share after leading in many games at half time.

On offense, Stanford played Everett Dean's excellent weave with its many options. Coach Dean has set forth this offense at length in articles and in his book Progressive Basketball. The offense is built around a series of side line screen plays with frequent use of the post. Diagram 20 illustrates the basic circulation. 02 passes to 04 and screens inside. 04 may dribble off the screen or hit the post. However, if no play is open he dribbles back and passes to 03 who has exchanged positions with 01. 03 can now start the same play on the left side or dribble over and go in the right side again. This weave pattern, run at a slow to medium tempo, sets up an endless series of options. Diagrams 21, 22 and 23 illustrate the more common ones used by Stanford this year. Diagram 21 shows Dean's basic "double cutters." 02 passes to 04, 04 hits the post and cuts off 02's screen. 05 passes to either 02 or 04. In case neither are clear, 03 may be clear for a set shot off 01's screen. Against California's switching man-to-man, Stanford tried to free the screener as the Bear guards shifted. The back screen in Diagram 22 works well in this case. On a signal, 02 passes to 04. 04 passes right back and sets a screen on X2. 02 dribbles around the screen and as X4 switches to stop the play, 04 is clear as he drops off his screen. Notice how 04 has the inside position on X2 if the guards switch. Stanford occasionally uses a quick post play by the guards. Center 05 should also be clever at turn and hook shots in either direction to prevent the defensive center from loosening and switching off on the cutters.

## Europeans at The Olympics

*(continued from page 6)*

paced in the first two-thirds of the race. Thus the Frenchman, Hansenne, may be the Olympic winner, for he is at present the most all-around runner in Europe for that distance. I do not believe the American runners can beat him. Gil Dodds does not have the fast finish required to win in Olympic competition. Dianetti is too young, and MacMitchell

probably will run in the 5000-meter race. There obviously are other excellent American runners for the 1500-meter event, but do they have sufficient experience to avoid the innumerable traps their opponents will skillfully lay for them?

The 5000-meter and the 10,000-meter races should be won by the Europeans. It remains to be seen whom the Swedes and Finns will select to compete with the Dutch, Slykhuist, and the Belgian, Reiff, in the 5000-meter and against the Czech, Zatopeck, in the 10,000-meter. It is probable these two runners will not make the mistake of competing against each other in the 5000-meter race which would give the Finn, Heino, an opportunity to win the 10,000-meter event.

It might seem odd that I mention Zatopeck in the 10,000-meter race when his best performances have been in the 5000 meters. Although he ran twenty times between 14:8.2 and 14:20 in the 5000-meter in 1947, he probably will be beaten by the Dutchman, Slykhuist. Slykhuist and Zatopeck met only once in 1947 in the 5000-meter race, and the Dutchman, with a terrific pace, gained thirty meters in a single lap. But if Zatopeck lacks final speed, he is on the contrary extremely resistant. Since the end of the summer of 1947, he has been preparing for the 10,000-meter event at London. Each day he runs fifteen and sometimes twenty kilometers (ten and thirteen miles) in the woods.

The Americans are certain winners of the 110-high hurdle, for it is an event that demands so many physical qualities—speed, skill and co-ordindination. It seems made specially for the United States athletes, nearly all of whom possess these three qualities. In Europe, veteran Lidman continues to be the best with 14.3. The Belgian, Braeckman, 14.5, and the Englishman, Finlay, (42 years old) 14.6, follow, but it is obvious none can seriously contest Dillard.

The other hurdle event, the 400-meter low, is very popular in Europe. If the Americans do not sacrifice Dillard by making him run in this event, the Frenchman, Arifon, should win. His time was 52.1 in 1947, his first year of competition in the low hurdles race. In 1948, he should make about 51 seconds.

As to the field events, there are several in which the Europeans have no chance at all, just as they have none in the pole vault, broad jump and discus throw, despite the elimination of Fitch.

Others, like the javelin throw, hammer throw, and the hop, step and


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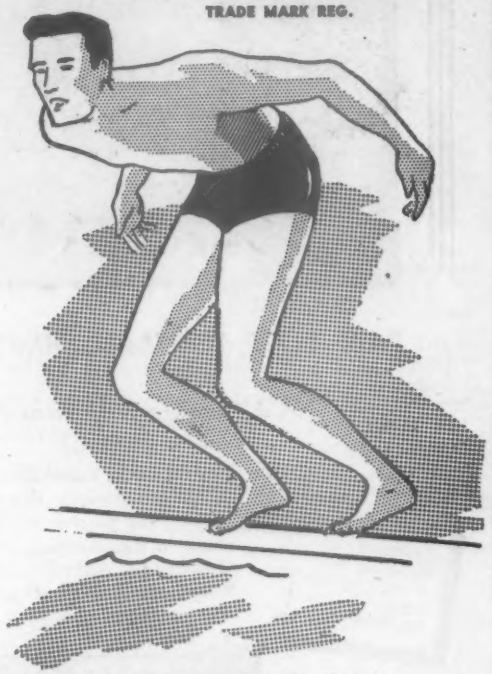

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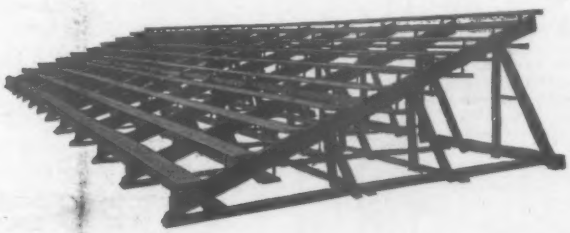

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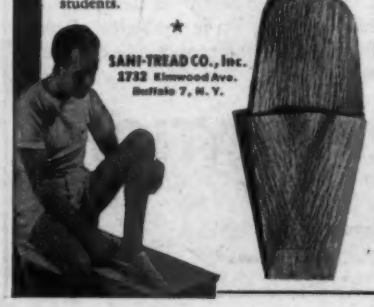

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jump should be won by the Swedes and Finns.

There remain then the high jump and shot put which should be distributed between the old and new continents. The best European in the jump is the Scotchman, Patterson, who in 1947 jumped six feet, seven and five-eighths inches. Patterson is only 18 years old and has made considerable progress in two years. He will be noticed in the Olympic Games.

In the shot put the best one in Europe seems to be the Russian, Lipp, with 54' 11". He can not beat Fonville, but can make a very nice showing and should place second. It remains to be seen if the Russians will participate in the athletic events.

To summarize, results of the imminent Olympic games appear very much "in the air". The entire world awaits the classics with impatience, for since 1936 there have been no means of comparing athletes of the different countries. Victory over an opponent in competitive events means much more than a record beaten in more or less advantageous conditions of heat, surroundings and wind.

Here are lists of the five best Europeans in each event for 1947:—

**100 Meters**

| | | |
|---|---|---|
| 1. | Wilkinson (England) | 10.4 |
| 2. | Bally (France) | 10.5 |
| | Braeckman (Belgium) | 10.5 |
| | Danielsson (Sweden) | 10.5 |
| | Laing (England) | 10.5 |
| | Lupsa (Roumania) | 10.5 |
| | Kleyn (Holland) | 10.5 |
| | Moina (Roumania) | 10.5 |

**200 Meters**

| | | |
|---|---|---|
| 1. | Wilkinson (England) | 21.3 |
| 2. | Moina (Roumania) | 21.4 |
| 3. | Bally (France) | 21.6 |
| 4. | Fairgrieve (England) | 21.6 |
| 5. | David (Czechoslovakia) | 21.7 |
| | Kleyn (Holland) | 21.7 |
| | Valmy (France) | 21.7 |
| | Whirter (England) | 21.7 |

**400 Meters**

| | | |
|---|---|---|
| 1. | Moina (Roumania) | 47.8 |
| 2. | Lundquist (Sweden) | 47.9 |
| 3. | Alnevick (Sweden) | 48.1 |
| 4. | Reardon (Ireland) | 48.3 |
| 5. | Sigonney (France) | 48.3 |

**800 Meters**

| | | |
|---|---|---|
| 1. | Hansenne (France) | 1:49.8 |
| | Holst-Soerensen (Denmark) | 1:49.8 |
| 3. | Linden (Sweden) | 1:50.1 |
| | Lundgren (Sweden) | 1:50.1 |
| | Storskrubb (Finland) | 1:50.1 |

**1500 Meters**

| | | |
|---|---|---|
| 1. | Strand (Sweden) | 3:43 |
| 2. | Ericksson (Sweden) | 3:46.6 |
| 3. | Bergkvist (Sweden) | 3:46.6 |
| 4. | Hansenne (France) | 3:47.9 |
| 5. | Reiff (Belgium) | 3:48.4 |

**5000 Meters**

1. Zatopeck (Czechoslovakia) 14:8.2
2. Heino (Finland) 14:15.4
3. Nyberg (Sweden) 14:24.6
4. Peraelae (Finland) 14:25.6
5. Durckfeldt (Sweden) 14:27.2

**10,000 Meters**

1. Heino (Finland) 30:7.4
2. Nystroem (Sweden) 30:14.4
3. Tillman (Sweden) 30:18.4
4. Koenonen (Finland) 30:27.2
5. Heinstroem (Sweden) 30:27.6

**110 Meter High Hurdles**

1. Lidman (Sweden) 14.3
2. Braeckman (Belgium) 14.5
3. Finlay (England) 14.6
4. Lundberg (Sweden) 14.7
5. Suvivuo (Finland) 14.7

**400 Meter Hurdles**

1. Arifon (France) 52.1
2. R. Larsson (Sweden) 52.5
3. Storskrubb (Finland) 52.5
4. Westman (Sweden) 52.6
5. Anore (France) 53.8
   Cros (France) 53.8

**High Jump**

1. Paterson (Scotland) 6'7-5/8"
2. Bjoerk (Sweden) 6'6"
3. Bolinder (Sweden) 6'5-1/8"
4. Campagner (Italy) 6'5-1/8"
5. Leirud (Norway) 6'5-1/8"

**Broad Jump**

1. Luther (Germany) 24'3-1/2"
2. Damitio (France) 24'2-3/8"
3. Naaktgeboren (Holland) 24'2"
4. Dias (Portugal) 24'2"
5. Strand (Sweden) 24'1-1/4"

**Pole Vault**

1. Kataja (Finland) 13'10-1/2"
2. Lundberg (Sweden) 13'9-3/4"
3. Lindberg (Sweden) 13'9-3/8"
4. Olenius (Finland) 13'8-1/8"
5. Kaas (Norway) 13'7-3/4"

**Hop-Step-Jump**

1. Ahman (Sweden) 50'-5/8"
2. Moberg (Sweden) 49'8-3/8"
3. Rautio (Finland) 49'8"
4. Johnsson (Sweden) 49'5"
5. Hallgren (Sweden) 49'3"

**Shot Put**

1. Lipp (U.S.S.R.) 54.11-1/8 M.
2. Nilsson (Sweden) 52.3
3. Kalina (Czechoslovakia) 52.1-6/8
4. Gorjanov (U.S.S.R.) 51.3
5. Lehtila (Finland) 51.2-5/8

**Discus Throw**

1. Consolini (Italy) 176' 1/4"
2. Tosi (Italy) 166'3-1/8"
3. Zerjal (Yugoslavia) 166'6-3/8"
4. Lipp (U.S.S.R.) 162'2-5/8"
5. Ramstad (Norway) 161'9-7/8"

**Hammer Throw**

1. Nemeth (Hungary) 189'2"
2. Eriksson (Sweden) 187'8"
3. Sjechtel (U.S.S.R.) 180'2"
4. Kndtek (Czechoslovakia) 178'9-1/4"
5. Mc D. Clarke (England) 177'11-3/4"

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## A Zone System of Blocking

*(continued from page 16)*

These defenses were first shown to the squad. They had to fix the zones in their minds as to where they were when the five, six, or seven-man line was used and as we went along our system showed results.

Although this system has not been fully proved I must say that in my eleven years of coaching, last fall was the first season that we were not worrying about the trick defenses our foes might employ.

It is not perfect, but a coach can use this system and he will gain the confidence of his team in coping with different defenses. I am jotting down a number of plays (page 16) used at Santa Clara last fall to illustrate how we coped against the 5-, 6-, 7-and 4-man lines. Southern Methodist used a four-man line against us in our second game, and this game more than any other proved to us the merits of our blocking system against shifting defenses.

## from here and there

*(continued from page 4)*

"Ox" will become assistant to Ray Morrison . . . Among the schools enlarging their athletic facilities are Denver University with a surplus building from Farragut Naval Base which will be used as a field house. Oregon State is building a two-story basketball pavilion seating 10,000. Texas is enlarging their stadium by 20,000 seats. Michigan State is increasing the seating of their stadium by 23,000. Georgetown and Middleburg are building new gyms. Kentucky is spending $2,700,000 on a new field house. Tennessee is upping its stadium capacity to 50,000. Vanderbilt has a big gym in preparation. Syracuse heads the list with a $3,755,000 field house to replace Archbold gym which was destroyed by fire. . . . Les Thompson, former Kansas State Teachers College and Columbia University athlete, has been appointed baseball coach at Adelphi College.


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## The New Look

*(continued from page 18)*

toward contributing to a physically fit citizenry."

The four factors enumerated seem much truer today than in 1938. Only to the fourth factor can we add. War with Russia will see a greater emphasis upon athletics and physical education than did the last war. First, because of the valuable lessons learned in the last war as to the benefits of having a physically fit military force and citizenry; and secondly, because athletics represents the American way of life and as such is diametrically opposed to the Russian ideology.

## If War Comes

To welcome the Easter season we decked ourselves out in a complete new outfit. First to greet the eye is our new cover. Each month a different and unusual picture will be used against a background of different colors. Coaches sending in pictures for the cover should be sure to include information relative to the action concerned and colors of the uniforms.

We are equally proud of our new type face. The type that we have selected is Baskerville, which has been judged by many experts in typographical layout to be the most modern and legible face being used. Numerous weeklies and monthlies of large circulation are using this particular type.

Third, we would like to call your attention to our new list of information editors appearing on Page 2. When we first established this department it was our announced intention to change these periodically. We felt that, with a different set of information editors from time to time, we would be able to present different viewpoints to our readers, for as everyone connected with athletics must know there are numerous different opinions regarding any one single phase of athletics. Our information editors are, as the name applies, sources of information to our readers. While it is nothing new for publications to have advisory editors, we feel that the use of information editors is a unique innovation in the publishing field. Our information editors also serve us in an advisory capacity it is true, but their primary function is to answer any and all questions which you, our readers, might have. You may forward the request for information to our office which is sent on to the editor of the sport in question.

Accompanying the new look is of course the vastly increased number of pages. In the first eight issues of this volume we have increased seventy-two pages or equal to another magazine the same size as this one.

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# Ivory System

RECONDITIONERS OF ATHLETIC EQUIPMENT

PEABODY, MASSACHUSETTS